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ORIGINAL ARTICLES.

THE THERAPY OF CANCER OF THE INTESTINES.

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A review of all the cases of intestinal cancer, including those of the rectum, that I have operated upon, is given in the following table:

TABLE I.

DIVISION OF GUT.	NO. OF CASES.	RADICAL OPERATION.				PALLIATIVE OPERATIONS.					
		No.	Cured.	Died.	Perm't Cure.	Enterostomy	Impr'd.	Died.	Anastomosis.	Impr'd.	Died.
Cecum	9	4	2	2	.....	2	.....	2	4	3	1
Ascending Colon	2	.....	.....	.....	.....	2	1	1	.....	.....	.....
Transverse Colon	1	1	1	.....	1 (1894)	.....	.....	.....	.....	.....	.....
Descending Colon	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Splenic Flexure	4	2	2	.....	1 (1897)	2	.....	2	.....	.....	.....
Sigmoid Flexure	28	12	7	5	1 6 years	16	5	11	.....	.....	.....
Rectum	237	174	158	16	29	60	46	14	3 excochleations.	3	.....
	282	194	170	24	32	82	52				1
Per Cent		68.7	87.6	12 3	16.2	31.3	72	30	7	6	

My experience in cancer of the intestines includes two hundred and eighty-two cases, which were found distributed over various portions of the large intestine. I will take up here in detail only those cases of each division of the intestinal tract which were of special interest, either because of the physiological findings, the therapeutics applied, or the ultimate results.

Among the tumors of the cecum, one case, treated and cured by resection, is worthy of special mention. In this case an examination, made nine months after the operation, revealed no local recurrence, but an inoperable carcinoma of the rectum at the level of the third sphincter. I believe that in this case particles of the soft primary tumor, having been carried down into the rectum, had directly infected this part of the gut.

Eight years ago I operated on the transverse colon of a man who shows no recurrence to date. Notwithstanding his age of eighty-four, he feels entirely well, mentally and physically. The case is worth mentioning on account of this ideal permanent cure and the *modus operandi*, first employed in this case and since in many others.

June 6, 1894, I was called to see the patient, seventy-six years of age at that time, who was suffering for three days with rapidly progressive symptoms of occlusion of the intestine. The patient was in an extremely weakened condition, and presented such a marked generalized meteorism that I could not arrive at a definite diagnosis. There had been constipation at times, but never distinct attacks of colic.

At the operation, performed the same day, the cause of the obstruction was found to be a circular carcinoma of hard consistence, and about the width of three fingers, situated in the middle of the transverse colon, which was pressed upward under the left costal arch by the much distended colon. Considering the age of the patient and his weakness on the one hand, and the great distension of the colon and narrowness of the distal portion on the other, I thought the following procedure the most practical: The tumor was fixed in the abdominal wound by means of a strip of iodoform gauze, pulled through an opening cut in the mesentery. The abdominal wall was closed above and below the tumor as far as possible. The afternoon of the same day I opened the gut a short distance above the tumor, tied into the opening a glass tube, and in this way made it possible to slowly empty the bowel without risk of soiling the wound. Within ten days the condition of the patient had so far improved and the bowels were sufficiently emptied to enable me to perform a second operation. The operation consisted of circumcision of the artificial anus, resection of the diseased part of the gut, end-to-end anastomsis, and complete closure of the abdomen. The patient has, as remarked above, remained well ever since.

I reported this case before the German Surgical Congress in 1898. I take the liberty, however, to mention it again, because the same method of operation was successfully carried out in five other cases (two cases of carcinoma of the splenic flexure, three cases of cancer of the sigmoid). In one of them there has been no recurrence since 1897.

The advantages of the procedure are clear. First of all, the danger of infection of the peritoneum through fecal matter is avoided, as the bowel is only opened after complete walling off of the peritoneal cavity. Furthermore, the primary operation, consisting in opening the peritoneum and elevating and fixing the liberated carcinoma, is practically free from danger. The more difficult secondary operation is done after the bowels have been emptied and the patient has regained some strength. I have observed in all my cases that at the time of the second operation the proximal and distal portions of the bowels have been about the same size, rendering end-to-end anastomosis less difficult.

Of the cases of cancer of the sigmoid flexure, three are worthy of interest. In one the patient remained cured six years after resection, dying of a non-carcinomatous disease of the kidneys. In a second case the anatomical conditions which led to the formation of the carcinoma were remarkable. The patient, seventy years old, was operated on for a suspected carcinoma of the flexura sigmoidea. Laparotomy was performed and a carcinoma was found in the middle of the flexure, involving two-thirds of the periphery of the intestinal wall. However, the entire flexure as far as it could be brought into view, showed numerous small *diverticula*, some about the size of a cherry, all filled with hard fecal material, feeling to the touch like wax. Evidently the cancer had developed from such a diverticulum. By means of the described operation, performed in two *seances*, a complete and permanent cure was achieved.

In my opinion this carcinoma developed on the base of a chronic ulcer, produced by the irritation of fecal matter retained in one of these diverticula. The patient had been a hearty eater, suffering for years from constipation. I refer to this fact because constipation is mentioned by several authorities as a cause of the formation of diverticula.

A third case of cancer of the sigmoid shows how, even in such a case, damage may result from the forcible introduction of a rectal tube.

Immediately after a high irrigation with a long semi-flexible rectal tube, a swelling accompanied by high fever and severe pain appeared above Poupart's ligament on the left side. The patient was formerly treated symptomatically with irrigation and purgation, because the carcinoma was considered to be inoperable. This occurrence, however, necessitated my being called in. I found a man sixty-two years old, very feeble, weakened by chronic constipation, fever and pain. A hard infiltration, the size of a fist, fluctuating centrally, could be felt in the abdominal wall above Poupart's ligament, contiguous to a harder intra-abdominal tumor, apparently connected with the sigmoid flexure.

I made an incision around the infiltrated area without opening the abscess, opened the peritoneum, and liberated the tumor in its connection with the infiltration. After proximal and distal ligation of the bowel I resected the tumor, and sewed both ends of the gut into the abdominal wound. Patient recovered and feels well with this artificial anus. Careful observance regarding evacuation of the bowels permits him to go about his duties—*e. g.*, to preside at meetings lasting for hours. The specimen showed that the sigmoid cancer was perforated by the high introduction of the tube.

I will now speak of my results in the treatment of cancer of the rectum.

It would be needless to repeat here the reasons why I operate without exception by the sacral route. I gave them two years ago at the German Surgical Congress. My method of operation remains unchanged; therefore I shall confine myself to a brief consideration of a number of opposing opinions expressed since my last report.

In my paper before the Surgical Congress in 1900 I merely desired to demonstrate what could be done for our patients suffering from rectal cancer, how many survive the radical operation, how many are thereby permanently cured.

I reduced the mortality of radical operation to 8.6 per cent., so far never attained by any other operator. I wish to emphasize that the explanation given by some, that my low mortality is due to a careful selection of the material, cannot be accepted. In preceding papers on the treatment of rectal cancer I have refrained from giving the statistics of all my cases, because these papers were written solely with the idea of advocating the sacral method. I shall give here a complete account.

Since 1887 two hundred and thirty-seven cases of rectal cancer were under my care, one hundred and seventy-four of which were treated by radical, sixty-three by palliative methods.

Some authors place great significance on the proportion between radically and conservatively treated cases, as demonstrating the greater or less inclination of the operator to radical operation. My figures show that I treated seventy-two per cent. of the cases radically, and Table II demonstrates that I stand sixth among the surgeons as to the frequency of application of the radical operation.

TABLE II.

OPERATORS.	Date.	Total Number of Cases.	Radical Operation.	Percentage of Radical Operation.	Mortality, Per Cent.
1 Bergmann	1888–1900	155	125	80.6	32.0
2 Koenig	1878–1890	120	96	80.0	32.5
3 Schede	1895–1901	61	48	78.7	32.0
4 Kuester	1885–1898	126	95	75.4	25.2
5 Kraske	1885–1896	110	80	72.7	18.7
6 Hochenegg	1887–1902	237	174	72.1	9.19
7 Czerny	1878–1891	152	109	71.6	11.0
8 Albert	1887–1900	158	105	66.4	13.0
9 Eiselsberg	1896–1901	75	45	66.1	11.1
10 Mikulicz	1890–1897	109	66	60.6	25.7
11 Kroenlein	1881–1899	110	63	57.2	11.1
12 Gussenbauer	1882–1896	259	145	56.0	22.7
13 Madelung and Garre	1883–1899	115	53	46.0	19.0

Although I do not accept the propriety of conclusions drawn from the percentage of the radically treated cases as to the care of the operator in selecting his cases for operation, it is fair to state that even from such a consideration I could hardly be considered belonging to the class of the too careful operators, since in my cases the radically operated ones triple the number of those treated palliatively. The fact that from 1887 to date I had one hundred and sixty-six cases, which is by far the largest number that any surgeon has had the opportunity of operating on by the sacral route, would also contradict the assumption that I select my cases too carefully.

Other writers claim that my low mortality may be explained by a change of the indication during operation. They assume that whenever conditions become critical during operation, I carry out the operation only in part; whereas other operators, having decided upon radical operation, carry it through so long as no absolutely unsurmountable obstacle occurs.

Some of my specimens will easily prove that I do not quail before long-drawn-out operations nor beat an early retreat.

I fully agree with Kroenlein as regards his opinion of the great importance of an exact understanding of the reasons for these considerable differences in the results of operation, and I will try to throw some light on these reasons.

Kroenlein gave in his well-known essay, in two tables, the statistics of the immediate results of operation and the causes of death following operation. Copying Kroenlein's subdivisions, I present on next page a table which is brought up to date by including the latest publications.

These tables show that, according to the latest statistics, the mortality percentage differs between 9.19 and 32.5 per cent.

In all my cases I have lost not one through anesthesia, hemorrhage during or after operation, shock or collapse, nor from pneumonia following anesthesia, and only two cases from acute sepsis resulting from the operation. These causes of death, however, reach a very high degree with some operators, amounting sometimes to fifty per cent. of all fatal cases.

TABLE III.—Radical Extirpation of Rectal Cancers.

OPERATORS.	Date.	No. of Operations.	Died.	Percentage of Deaths.	Sepsis and Pyemia.	Peritonitis	Collapse.	Lung Affection.	Other Causes of Death
Mortality Below Twenty Per Cent.									
1 Hochenegg.....	1887–1902	174	16	9.19	7	1	1	1	6
2 Czerny	1878–1891	109	11	10.0	..	8	1	2	..
3 Kroenlein.....	1881–1899	63	7	11.1	1	2	1	1	2
4 Eiselsberg.....	1896–1901	45	5	11.11	1	2	1	..	1
5 Albert.....	1887–1901	153	17	13.0	11	1	1	2	2
6 Kraske.....	1885–1896	80	15	18.7	3	4	3	2	3
7 Madelung & Garre.	1883–1890	53	10	19.0	4	1	2	2	1
Mortality Above Twenty Per Cent.									
8 Gussenbauer	1882–1896	145	33	22.7	11	9	7	2	4
9 Kuester.	1885–1898	95	24	25.2	6	6	7	4	1
10 Mikulicz.....	1890–1897	66	17	25.7	1	2	2	4	8
11 Kocher.....	1873–1889	35	10	28.5	5	3	1	..	1
12 Schede.....	1895–1901	53	17	32.0	..	2	9	2	4
13 Bergmann.....	1888–1900	125	40	32.0	7	2	21	3	7
14 Koenig.....	1878–1890	96	31	32.5	10	1	6	..	3

I think here is the key to the correct understanding of the divergence in results, and it should at last be acknowledged that in the method of operation, and not in the selection of the cases, may be found the cause for my smaller mortality. A further reason for the divergence of the immediate results can be found in the difference in the healing process. In my opinion, it is in my cases enhanced in various ways. I consider Kraske's preparatory operation as very favorable for the healing process, because it offers, more than any other, the opportunity for a direct, free drainage backward; because it is free from the dangers incident to all the preparatory operations with temporary resection of the gut, or to the methods which from below approach the higher parts of the pelvis. Especially these latter methods do not permit of a satisfactory drainage of the deep field of operation.

That the wound must be protected from contact with bowel contents is generally acknowledged. The methods of suturing proposed by me seem to fulfill this purpose, at least for the first few days, and these are the most important. I admit, however, that sometimes even in this method stitches tear, and then bowel contents soil the wound. But if granulation has once begun, this occurrence is usually without consequence.

I have emphasized on a previous occasion, and repeat here, that the preparation of patients for operation by the simple administration of cathartics which only liquefy the intestinal contents is not sufficient.

Of considerable importance is an extremely careful after-treatment. And, in conclusion, I can only say that the great divergence in the immediate results of operation is solely explainable by the method of operation, by the care of the wound, and by the after-treatment.

The next question which arises, naturally, is whether my method is sufficient, whether the late results properly compare with the results of those operators "whose mortality figures," as Wolf says, "are appalling, whose lasting cures are splendid."

As the criterion for a permanent cure I accept Kroenlein's triennium. I consider cases permanently cured in which, by a detailed written report of the patient, by an examination made by a physician, or, as in most of my cases, by repeated personal examination, the fact is proven that from the time of the operation at least three years have elapsed and the patient is still free from recurrence. Of these cases those must be deducted which show late recurrence.

I found, for instance, this year again late recurrence in three of my cases, which, in accord with the usual calculations, had been considered permanently cured.

Of my one hundred and seventy-four radically operated patients, the eight operated by the perineal route and one hundred and twelve of those operated by the sacral route have passed the triennium. I base my calculation, with reference to permanent cure, on these one hundred and twenty cases. Thirty-five of them lived more than three years free from recurrence, three of them died of late recurrence, so that I can to-day figure thirty cases as cured—*i. e.*, twenty-five per cent.

I do not approve of the way of Kroenlein's figuring the percentage of permanent cures. He includes in his calculations all the cases operated upon radically, also those which have not yet passed through a period of three years. Yet I will accept here this method, in order to compare my results with those of other surgeons.

In the following table I give the percentage of permanent cures, calculated from the number of radical operations.

TABLE IV.—EXTIRPATION OF CANCER OF THE RECTUM.

Permanent Cures.

Mortality Percentage.	OPERATORS.	Total Number of Cases.	PERMANENT CURES.		Late Recurrence.
			Number.	Per Cent.	
28.5	Kocher	35	10	28.5	3
9.19	Hochenegg	174	30	17.3	5
25.2	Kuester	95	16	16.8	2
11.1	Kroenlein	63	10	16.0	..
10.0	Czerny	109	16	14.6	..
18.7	Kraske	80	11	13.7	3
32.0	Bergmann	125	16	12.8	..
19.0	Madelung and Garre	53	6	11.3	2
32.0	Schede	53	6	11.3	..
13.0	Albert	153	16	10.4	3
25.7	Mikulicz	66	6	9.0	2
11.1	Eiselsberg	45	4	8.8	2

That some of the operators fare badly in this form of calculation is best shown in the case of Eiselsberg, whose permanent cures have rightly been

figured as twenty per cent. by Prutz. In these statistics he takes last place, because twenty-five cases are included which had not yet passed the triennium.

Out of my thirty permanently cured patients ten have a completely, two a relatively continent anus; fourteen have an anus sacralis; three have the anus in the normal position, but it is incontinent. These three last mentioned cases, however, have adapted themselves to the defect, and know through diet and care how to regulate the stool so that they are able to follow their vocations without difficulty.

The time elapsing since operation in my permanent cures is as follows:

In one case more than fifteen years;
In one case more than eleven years;
In two cases more than ten years;
In three cases more than nine years;
In four cases more than six years;
In five cases more than five years;
In four cases more than four years;
In all the remaining cases more than three years.
Five succumbed to intercurrent diseases.

As Table IV shows, I stand second in regard to percentage of permanent cure, being excelled only by Kocher's clinic.

I feel that I must lay special stress on this fact, since it proves that I am not behind other operators in point of radicalism, and that the cause for my lower mortality can certainly not be found in any avoidance of too radical procedures on my part.

ANGIOMA OF THE LIVER—REMOVAL—WOUND TREATED BY THE INTRA-PERITONEAL METHOD.*

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Angioma may be defined as a tumor composed of blood vessels produced from a matrix of cells of the vascular layer of the embryo, taking part in the development of the blood vessels. This definition excludes from this class of tumors all swellings caused by dilatation of pre-existing blood vessels.

Under the head angioma, Virchow included all vascular tumors. Ziegler sanctions the opinion that cavernous spaces are formed by dilatation of pre-existing capillary vessels, accompanied by pressure atrophy. Senn considers this view untenable, as the structure of the tumor does not represent the conditions produced by vascular obstruction. Weil, from his observations, concludes that the origin of new blood vessels is as variable as the formation of new embryonal vessels. He found projecting from the wall of the old and new capillary blood vessels a streak of protoplasm which showed nucleated projections, which, in the course of time, became laminated and were traversed by blood from the pre-existing vessels. In other places he found proliferation of the endothelial cells which formed buds and projected into surrounding tissues. These masses of endothelial cells formed new vessels by the formation of hollow spaces which communicate with the vessels from which they originated.

* Read before the Missouri State Medical Association, May, 1902.

Rokitansky has seen and described the formation in the connective tissue of blood spaces discontinuous with pre-existing blood vessels and which only later entered into communication with them.

The angioma is composed of three parts: First, new blood vessels which are in communication with the adjacent vessels; second, interstitial tissue composed of pre-existing tissues in which the tumor develops, and third, the blood contained in the vascular spaces. In the growth of the normal blood vessels the angioblasts furnish the essential tissue elements of the blood vessels. The blood vessels reach their requisite normal size when the process becomes stationary. The angioblasts from which an angioma develops observe no such limitation of function. Their function is a progressive one and their product of tissue proliferation results in the formation of atypical blood vessels which are not required by the part in which they are produced and which constitute the essential tumor tissue.

The vascular spaces are lined with endothelial cells, the product of the angioblast. In growing angioma new blood spaces continue to form and again enter into communication with older vascular spaces. As the blood spaces are formed by the production of an intima from the angioblast, active proliferation takes place in the remaining tissue of the vessel wall. Connective tissue and muscle fibers, derived from pre-existing blood vessels, are produced, forming the outer and middle coats of the new vessels. The limits of the tumor, as in all benign growths, are well defined; the communication with blood vessels is very free. Virchow and Maier have shown that angioma of the liver can be injected from the hepatic artery and vein and from the portal vein. According to the number and activity of the angioblasts the tumor may grow, remain stationary, or disappear spontaneously.

The cavernous angioma may be either congenital or acquired, is found in the liver, spleen, kidney and bone, and composed of irregular blood spaces, which communicate freely with one another and are separated by fibrous septa of variable thickness; the walls of the blood space are lined by endothelium. The formation of the new blood spaces takes place in the fibrous septa and in the periphery of the tumor.

Great progress has been made in the surgery of the liver during the past fifteen years, due largely to the results of experiments on animals of Gluck, Ponfick and Meister; and the mortality has been reduced from sixty-two to less than ten per cent. The patient whom I present, Mr. P. H. P., is a Dane, age thirty-nine, single, plasterer. He entered Rebekah Hospital July 22, 1901. His past history and that of his parents, who are living, reveal no antecedents which bear on the present trouble. As a boy he was delicate, but for twenty years prior to 1896 he enjoyed good health. During the spring of that year he experienced a feeling of fullness at the pit of the stomach. Some months later pain in the epigastric region became a prominent symptom. The pain recurred at intervals of two or three weeks, and was accompanied by nausea, and occasionally by vomiting. He had refrained from eating for twenty-four hours or more at a time to obtain relief. Had been unable to attend to his work for five months past, during which time he had lost twenty pounds in weight. His bowels were regular, urine straw-colored, specific gravity 1020, no albumen, no sugar, slight sediment.

On examination a tumor was felt in the median line, a little nearer the ensi-

form cartilage than the umbilicus. The growth pushed the abdominal wall forward. It could be moved in all directions, was tender on pressure, dull on percussion, was separated by a tympanitic zone from the liver, and would move slightly with respiration. Inflation of the stomach did not alter the position of the tumor. The lower border of the left lobe could be felt below the growth, so that the probability of attachment to the stomach, colon, pancreas or omentum was excluded.

July 25th an incision was made over the most prominent part of the growth, a little to the right of the median line, extending from just below the ensiform cartilage to a point an inch above the umbilicus. A rounded tumor, measuring three and a half inches transversely presented. Examination with the index finger showed it was pedunculated, elevated above the liver more than two inches; that it occupied the anterior surface, and did not extend to the lower border of the left lobe. By pressure its size could be slightly reduced. Believing it to be an angioma, I cut down through the liver tissue into its substance, intending to put an elastic ligature around its base. The hemorrhage was alarming. To control the bleeding I surrounded the left lobe an inch to the right of the incision into its substance with a small rubber tube, and, with scissors curved on the flat, I divided where I had intended applying the ligature. Five cavernous spaces were to be seen. These were closed by chromasized gut ligatures, passed through the liver substance some distance from the sinuses. The surface was then packed with sterilized gauze, and the rubber tube loosened. The cautery was not used, as the gauze packing effectually controlled the bleeding.

The method of dealing with the wound next presented itself. Knowing that Langenbach, Wagner, Lius and Keene had closed the abdomen after controlling the bleeding, and Lius' and Wagner's cases died of hemorrhage, and that Langenbach's case was only saved by reopening the abdomen and tying the vessels, I decided to fix the stump into the abdominal wound. This was tried, but the tension was so great the stitches were removed. The upper and lower angles of the abdominal incision were then closed. The surface of the liver wound was packed with gauze, which extended through the parietal incision. The abdominal cavity remaining open, forty-eight hours later I removed the gauze (which was stained by bile), intending to close the peritoneal opening, but some oozing appeared. The following day a second effort was made, with similar result. On the fourth day the packing was removed, the edges of the abdominal opening freshened, and the wound closed. The patient made an uneventful recovery. At no time was the temperature above 101½°. He left the hospital August 11th, sixteen days after the operation, apparently well.

Being anxious to know the exact nature of the growth, the specimen was sent to Dr. Henry Rohlfing, pathologist, of this city. The following is his report:

"The microscopical finding in the specimen labeled 'Patterson,' submitted July, 1901, for examination, I have to report as follows: The general appearance of the specimen contained quite a fibrous stroma, in which were suspended fusiform blood vessels, tubular and sacculated variously throughout; also cavernous variety, with hyaline degenerations of underlying tissue, considerable parenchymatous hemorrhage; normal liver structure entirely absent."

Reviewing the literature of the subject, I find the total number of operations

for hepatic tumor thus far reported seventy-six, though but four of that number were for angioma.

At this time, almost ten months after operation, the patient has had no recurrence of the attacks of pain, nausea or vomiting, has gained fifteen pounds in weight, and is in the daily pursuit of his calling.

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MOVABLE KIDNEY.

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In presenting a paper on this most interesting subject, my object is to call attention to a class of patients who necessarily enter into the practice of every busy practitioner, and who have this condition overlooked because of either improper methods of examination or disinclination on the part of the doctor to spend the time in careful physical exploration of the abdominal region. I am very certain many of the dyspeptics (thin, nervous and neurasthenic) with stomach, bowel, liver symptoms could have the seat of their trouble traced to a kidney which because of abnormal mobility, pressing upon neighboring organs or pulling upon its pedicle, causes a chain of disturbances which are incorrigibly difficult to handle, and which carry the sufferers from physician to physician in search of health.

It is well before starting upon a discussion of the subject to understand the significance of the term movable kidney. I find in looking over the literature of the subject a tendency to confuse the terms movable and floating as applied to the kidney. By movable kidney should be understood that condition of the organ in which an abnormal amount of movement is allowed it by its perirenal fascia, and this movement must be wholly behind the peritoneum and bowel. A floating kidney, on the other hand, is a congenital malformation in which the organ has a mesonephron upon which it swings in the abdominal cavity.

Movable kidney is acquired, while the floating kidney is normal to the possessor having been brought about in fetal development. All kidneys are movable to a certain degree in that they are not fixed, but partake of the movement of the diaphragm in respiration. Between extreme inspiration and expiration this movement is given by Albarrans as three to five cms. F. S. Wilson as the result of experiment upon twelve cadavers, using the fingers upon the organ through an anterior incision, gives one-half to one and one-half inches as the normal amount of movement allowed. It will be seen there is no fixed law as to the amount of movement which the kidney possesses, and necessarily there can be no set rule of linear measure by which a kidney should be adjudged movable.

That which would result in symptomatic and pathologic changes in one would produce no recognizable symptoms in another. For practical purposes a movable kidney is one whose excursions produce traction upon the duodenum, colon, appendix, disturbing alimentary functions or by changes in the direction of its pedicle causes a series of both urinary and general symptoms which are out of harmony with the normal individual. I find a number of writers who record cases of movable kidney which cause neither discomfort nor do they pro-

duce pathologic changes which can be detected. I am sure this lacks practicability. The direction taken by a moving kidney may be downward and either inward or outward. This direction is determined by the combined influence of the perirenal fascia and the surrounding viscera. The relationship of the perirenal fascia, which is a derivative of the subperitoneal connective tissue, has been carefully worked out by Gerota ('95) and by Glantenay and Gosset ('98). There are two layers of this fascia, the one behind and the other in front of the kidney. That behind is continuous with the psoas fascia and with it attached to the vertebral column. The anterior layer crosses to the opposite side, where it passes in front of that kidney. Above, these layers unite and are attached to the diaphragm; below they continue separate, being united by crossing fibers which help to support the kidney. It is seen that this arrangement allows of a greater or less movement of the enclosed kidney, and, too, it is readily seen how developmental defects of an hereditary kind could predispose to abnormally great movement. The perirenal fat upon which some writers lay so great stress is enclosed by these two layers of fascia.

Wolkow and Delitzin (1900) wrote upon the influence of the prevertebral space in allowing kidney misplacement. Plaster casts were taken of a number of fossæ in the cadaver, and it was found these spaces were shallower and more open below in women than in men, and it was also determined that the right fossa was so in excess of the left in the same individual. This would account for the preponderance of right movable kidneys in the female.

The usual direct causes given for this condition are: Frequent child bearing (Glennard), wasting of the fatty capsule which is supposed to help hold the organ in place (Landau), hepatic, chest and other troubles producing pressure from above, hernia and uterine displacements which cause colon traction downward, stones and growths of the organ increasing its weight, and, last of all, trauma.

An interesting paper appeared in 1900 by Godart and Dauhieux, in which they deny the influence of pregnancy and age in the causation of movable kidney, and likewise look upon its association with enteroptosis as merely coincidental. They insist that intra-abdominal tension changes have nothing to do with movable kidney.

The symptoms of movable kidney are very variable and depend of course upon the disturbance in the pedicle in the one case and upon pressure or traction on neighboring organs in another. In a general way they may be grouped under the following heads: First, urinary and local; second, alimentary; third, general.

Pain in the kidney or in the side, radiating into the bladder, testicle, along the branches of the lumbar or sciatic nerves. Albumen, casts, blood and epithelium may be found, though with no constancy. Disturbed digestion, bloating, vomiting, burning pain in the pit of the stomach, constipation or diarrhea, colitis, appendicitis. Neurasthenia is usually marked, and at times the only symptom which calls attention to the condition. Nervous dyspepsia and movable kidney have become to mean almost the same thing. Muddy skin, loss of flesh and fever are also to be observed at times. Symptoms are usually made worse by being on the feet, and relieved by recumbency.

The catamenia usually increase the discomfort of the patient and cause the physician not infrequently to look to the pelvic organs for the seat of trouble.

Pain in the region of the appendix is the prominent symptom in ten to twenty per cent. of the cases. The thin, unfed appearance of the majority of the patients is due to the alimentary disturbance. In 1879 Keppler called attention to this feature of the disease.

The diagnosis of movable kidney is made by means of physical examination of the patient. For this purpose the horizontal position either upon the back or side is best. I personally do not like the upright, leaning forward to relax the muscles of the abdominal wall. Misplacements are not difficult to detect even in the stout when care is exercised and one is familiar with the method of examination. As the great majority are thin, palpation of the kidney is an easy matter. When the lower end of the kidney is found below the line of the umbilicus in conjunction with some of the symptoms given above, it can be reckoned as a movable kidney.

The frequency of occurrence is variously given. Of necessity the gynecologist will have a greater per cent. to record than the general surgeon, and, too, the surgeon than the general practitioner.

Kuster (Berlin) found 4.41 per cent. of his surgical cases with movable kidney.

Goelet and Edebohls, 20 per cent. in a gynecologic practice.

Harris (Chicago) had 56 per cent. in one hundred and twenty-six cases.

H. D. Beyea, 10 to 15 per cent. in a gynecologic practice.

Glenard, at the Thermal Hospital, Vichy, saw five hundred and thirty-seven cases in 4,215 persons examined.

Senator and Guttman record 1 to 3 per cent. only.

Treatment of movable kidney is essentially surgical. In times past the bandage and kidney pad was much worn, but since the advancement in surgical technic these means have been discarded. At best they did no good, and at times actual harm came from the pressure over the kidney. Menge reports albumen and blood in the urine of fifteen persons wearing the pad whose urine was normal before putting it on.

To Hahn (Berlin, '81) is due the credit of first performing nephrorrhaphy. The results were not gratifying in the early period of the operation, and even Billroth and Czerny were loth to perform it. Martin lost three out of four cases operated upon in '82.

The steps taken in the improvement of the procedure since the first operation of Hahn till to-day are indeed interesting. The application of the suture to the fatty tunic, the proper tunic and through and through the organ; suturing with catgut, animal tendon, fascia and aponeurosis of the same individual split off from the field of operation, silk and silk-worm gut. The paralumbar incision seems to have been adhered to, with occasional anterior exploration. As a support to the kidney it is suggested to sew the two layers of the perirenal fascia together under the kidney or to make a pocket for it behind the anterior layer of the lumbar fasciæ.

The aim in the operation of nephrorrhaphy being union with the lumbar fascia, a number of methods have been suggested whereby this may be brought about. After the removal of the fatty packing from the posterior surface, Basini suggested, before suturing the kidney in position, the use of 8 per cent. zinc chloride painted upon the tunica propria; Albarrans, 95 per cent. phenol or 4 per cent. argent. nitrate; Koenig packed the wound, keeping it open for six to twelve

weeks, to obtain a large scar extending to the posterior renal surface. Senn and Deaver, as well as a number of others, use the gauze packing under the lower end of the kidney for a few days. Beyea resorts to the rubber tubes with which he encircles the kidney, one around the lower end and the other about the upper. These left in place three weeks cause two band-like scars to form in their tracks after removal. Guyon first suggested the removal of the capsule to produce firm adhesions between the kidney and posterior wall. Variously shaped flaps have been since recommended, these sutured into the wall or about bundles of muscle fibers. Tuffier claims the fibrous tunic of the kidney will not proliferate and take part in the scar formed by packing about the kidney or caused by irritants applied to it. No operation has been universally satisfactory, and the surgeon obtains the best results who can adopt that method best suited to the individual case. The danger to the patient in performing nephrorrhaphy is small, and depends rather upon complicating conditions than upon the operation itself. Edebohls found nineteen chronically inflamed kidneys and two acutely in one hundred and seventy-six persons operated upon for loose kidney. To Edebohls is due the suggestion to remove the appendix in operating upon the kidney, both being accomplished nicely through the lumbar incision. There are but few contraindications to operation; even enteroptosis, says Goelet, should not deter in its performance. Nephritis is directly benefited by the removal of the capsule and the liberating of tension and the bettering of the circulation.

The results recorded following the operation have of necessity a personal factor to be counted in. Experience with a requisite skill of an innate mechanical kind has much to do with the outcome of a series of cases. On the whole the operation may be said to give most excellent results and should cause practically no mortality in proper cases. At times some pain remains after a successful fixation. This is due to an appendicitis of a chronic character brought about by the formed disturbance in the mesenteric circulation. At other times unquestionable kidney irritation of a purely mechanical kind may be noticed for a while after the tight fixation of the organ subjecting it to pull during respiration or movements of the body.

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FULL-CORRECTION AND UNDER-CORRECTION OF MYOPIA.

By Arthur C. H. Friedmann, of Colorado Springs, Colorado.

The last ophthalmological meeting in Heidelberg almost gave the impression that the under-correction of myopia was entirely discarded and a thing of the past. Not a single voice was heard to defend a method which had been practiced among the oculists of the whole world for a space of time equal to that of the existence of scientific ophthalmology.

The total statistics of Pfalz and Heine, who are strong advocates of the new theory, do not amount to two hundred cases, while the number of under-corrected patients must have been many thousands. How much easier, therefore, for them to see the disadvantages of the old method, which had been practiced for decades, than during the short period of practice to appreciate the weak points of the new one.

Having been for several years assistant of Prof. Koenigshoefer, I naturally became a follower of the principle of under-correction. Our rule was to correct every myopia from one diopter upward, so that the lenses were about one or one and a half diopters below the absolute myopia, if the comfort of the patient allowed us to do so, and when no affections of the fundus existed. Myopia above six or seven diopters we corrected just sufficiently to give the patient enough eyesight for average daily work and left part under-corrected in order not to strain the accommodation and to avoid micropia. Concave lenses above ten diopters we only prescribed for special purposes, such as use in observation cars, theaters, and so on. A lorgnon was permitted as a supplement; the most uncomfortable form of glasses was purposely given in order that the patients should not use them except when absolutely necessary.

In correcting myopes for reading, a lens two and a half diopters weaker was prescribed, so that they could see plainly up to 40 ctm.

The combinations of myopia with astigmatism and insufficiency of the recti-interni were always carefully considered.

Especial care was taken to make it impossible that cases of spasm of accommodation should be mistaken for myopia, and no concave glasses were given to youthful individuals without applying a mydriatic for several days in succession.

We used to differentiate our cases with respect to the probability or improbability of progression of myopia, and in those in which we were satisfied that the fundus conditions were normal we quite frequently gave full-correction, provided it proved comfortable to the patient.

The pupillary distance was measured exactly in order to force the patient to see only through the optical center of the lenses, so as not to get any of the undesired astigmatic or prismatic effects of the edges.

One of the most important points was to keep the myopia, especially in youthful individuals, under steady observation, and not to allow at the utmost longer than half a year to elapse between examinations. We often found that during the interval the myopia had somewhat decreased, in which event weaker glasses were given. Meyerhof reports a case of a youthful myope which showed, in 1898, 11.0 D, and was corrected with 6.0 D; in 1899 the same patient had

with the same visual cavity 10.0 D, and the following year 9.0 D. It seems rather improbable, he says, that, with a myopia of 11.0 D, where the back part of the bulbus is considerably stretched and its elasticity almost entirely lost, the fovea centralis should have moved more than 0.6 mm. to the front.

When the refraction had not altered, no change was made; when it was found that the myopia had increased, subjectively, a mydriatic was employed; and when the objective results did not harmonize with this increase, we continued the instillation of mydriatics. Usually atropia, one per cent., was used for quite a length of time, and this was done even in adults up to thirty-eight or thirty-nine years of age; and frequently we had the satisfaction of finding that the increase of myopia was only a seeming one, and that the same or even weaker lenses were accepted afterward.

This has been the practice of almost all German oculists, and up to the present time the great plurality of them have not deemed it necessary to change their standpoint, although Foerster, Risley and several others have called attention to the advantages of full-correction from time to time. It has been asserted that it is for theoretical reasons only that the profession has not followed any of these impulses, but according to my experience I would say that just the practical side of it—*i. e.*, the discomfort in wearing full-correction for distance and the greater discomfort in wearing the same for reading—determined me, like the others, to look somewhat skeptically on the supposed excellent results of full-correction.

The strongest point of the new theory is the possibility of diminishing the progression of myopia. Several points have to be considered when we speak of this disease. One of the most important is the age of the patient; and while we used to believe that the ages from fourteen to twenty-one years were the most dangerous, we are now convinced that it is far more so during the period between six and fifteen. The degree of myopia is another important factor, and especially the cases of more than ten diopters show a tendency to pernicious progression. The heredity of the patient and his occupation are other features to be considered.

The period during which we must observe our myopes ought to be an unlimited one. If a myopia progresses in one year from 4 to 6 D, it is to be considered a rapid case; while another, progressing the same amount in six or eight years, is slow and not very dangerous. If a myopia of 14 D progresses to 16 D, it means far more anatomically than one progressing from 4 to 6 D.

All these points should be supported by extensive statistics, and if Dor in Lyon really has fully corrected for the last ten years and a half, he ought to publish his statistics, giving his results on the above mentioned points, as well as on many others. The small publications of Rueckert, Priestley Smith and others, with their selected cases of low-degree myopia, are not decisive. These statistics should be put up, as Meyerhof says, "*sine ira et studio.*" They should give us reports of the entire childhood of the patient, and ought to take in a period of not less than four or five years.

If full-correction proves not injurious, it surely offers great advantages in giving to the myope the natural conditions, for instance, of accommodation and convergence; if we have a chance of making the myope emmetropic, we certainly will grasp it with great readiness.

The following is an extract from a letter which I received from Dr. Knapp, of New York:

"Full-correction in myopia, with good sight and no danger of fundus changes, is in my opinion the correct treatment. Abnormal—*i. e.*, morbid—conditions: impairment of sight, rarefaction of chancroid, congestion and hemorrhage in fundus, vitreous opacities, maculæ corneæ, etc., will prohibit full-correction in many persons. The diminution of print and other fine work require more exertion to see clearly with a strong than with a weak concave glass.

"My rule is to enable such people to read about 20-70 and let them wear these glasses for all ordinary purposes, allowing the full-correction for galleries, theaters, prospect cars, etc. Persons that have used full-correction without inconvenience in their younger years I frequently advise an under-correction for fine, near work when they are thirty-eight to forty years of age or more.

"The patient's habits, occupation and preferences should also be considered in the choice of glasses."

The anatomical investigations of Heine and the sentiment of the Heidelberg Congress, as well as of the Ophthalmological Society of the United Kingdom, are so unanimously in favor of full-correction that I hope they will induce every oculist to give the closest attention to the effects of his method of correcting myopia.

I think that I shall try to individualize all cases of myopia that come under my observation. I shall also endeavor to take a step toward the system of full-correction by moving from decided under-correction to slight under-correction.

A general full-correction I will not consider before exhaustive statistics have proved it absolutely beneficial.

CLINICAL REPORTS.

FACTITIOUS ULCER OF THE FOOT.

By M. F. Engman, M. D., of St. Louis, Missouri,

CHIEF OF DERMATOLOGIC CLINIC, POLYCLINIC, MEDICAL DEPARTMENT WASHINGTON UNIVERSITY.

Artificially-produced eruptions are always of especial interest from a diagnostic point of view. They are, of course, very often produced to escape work, excite interest or charity; to gain admittance to hospitals or charitable institutions, but are also in many cases of neurologic interest. The lesions produced upon the skin will often baffle the most careful observation, but usually are of characteristic appearance. The diagnostic points given in every text-book upon diseases of the skin, if always remembered, will generally be sufficient to diagnosticate a suspicious case. One is often, however, caught "napping," and a clever, educated and neurotic patient will sometimes produce lesions which forces us upon our own ingenuity to make a diagnosis. These latter cases will produce crop after crop of the most peculiar and correct pathologic lesions, as if made by Dame Nature herself—then the physician, if he is puzzled or at all suspicious of self-mutilation, should become apparently careless, yet quietly more careful; the patient thus having "more rope" will soon cease to be as accurate in her manipulations and produce a characteristic factitious lesion.

Another excellent assistance in diagnosis is by biopsy, and the consent to this procedure is usually readily obtained from these neurotic patients. A small piece should be excised from the edge of the lesion, including a line or so of healthy skin. Upon sectioning and staining this the homogenized or cauterized epidermis is plainly shown in comparison to the healthy portion alongside of it. Such a section was lately shown me by Dr. Carl Fisch of this city, which was taken from a neurotic woman who secretly produced very puzzling lesions upon her skin. She afterwards confessed she had produced them with carbolic acid

The case we wish to report is as follows:

Mrs. X., aged forty, came to the polyclinic hospital (service of Dr. Hardaway) for an ulcer of the foot. She was referred by a very competent and experienced physician, who was greatly puzzled by its appearance. The provisional diagnosis made by us upon the first visit was that of syphilitic ulcer, from the ulceration, the escaloped border, sharply defined infiltration, and discoloration of apparently former lesion on the leg. Specific treatment was given and the ulcer dressed with a bichloride poultice. The ulcer grew rapidly from day to day, and upon each visit we found that our dressing had been removed. The patient was markedly hysterical (?), crying upon the least provocation, and volubly recited her many troubles and wrongs. She also complained of great pain in the ulcer, crying out upon the slightest touch. This was affected, as upon engaging her in conversation another could rather roughly handle the foot without eliciting any complaint. These points aroused our suspicions and it was decided to watch her. The wet dressing was reapplied and a bottle of the solution given her to apply herself, thereby allowing her more opportunity to catch herself as it were. She did. In a few days she returned, the ulcer had greatly increased in size; at the anterior-inner and anterior-outer edge were typical sharp angles which could

not be produced by pathologic processes. Upon these two features it was decided that the ulcer was self-produced. But upon studying the accompanying photograph many similar angles and points can be seen; however it must be admitted that the ulcer is most artistically and carefully made, the patient taking pains to produce more artistic curves than sharp angles. At the border of the ulcer there were never seen papules or other lesions characteristic of syphilis. The discolorations upon the leg were probably similarly produced.

From an unguarded ejaculation made upon examining the lesion, the patient at once took the hint and inquired if we thought she had produced it with car-

bolic acid, when none of us connected with the clinic had hinted at such an accusation. The sentence "I thought so" had probably aroused her suspicions.

The foot was redressed, but a crinoline bandage was placed over the dressing, and the patient given instructions not to dare remove it. She never returned.

Her family physician states that she is very neurotic and he thinks she produced the ulcer to awaken the sympathy of her husband and thus obtain a servant to assist her, which she did not have previous to her disablement.

I am indebted to Dr. H. P. Wells for the excellent photograph accompanying this report.

DETACHMENT OF THE AURICLE FOR THE REMOVAL OF A MIGRANT FOREIGN BODY IN THE EAR.

By James Moores Ball, M. D., of St. Louis.

Detachment of the auricle, as a step necessary in the removal of foreign bodies in the ear, is rarely required. Some writers on aural surgery, in days gone by, regarded this operation as unnecessary and unjustifiable. Some years ago Theobald,[1] in discussing the operation of detachment of the auricle for the removal of a foreign body in the auditory canal, said he could "scarcely conceive of a case which would warrant recourse to such an expedient;" and in a recent article[2] on the subject he reiterates this opinion. No doubt this distinguished author had in mind only foreign bodies introduced through the external auditory canal.

In the case about to be reported it is evident that less heroic measures would have been useless.

Mr. M., insurance agent, aged fifty-two, was brought to me June 12, 1902, by Dr. Foreman, of Kane, Illinois. The patient is a strong, healthy-looking man. Ten years ago the right ear was the seat of a purulent otitis media, which seems to have left no evil effects, the membrana tympani appearing to be normal and the hearing power fully retained. For the last three years the left ear had been the seat of frequent attacks of pain and inflammation with occasional discharge of pus. Recently there has been pain in this ear during mastication. The hearing power-watch at three feet. The tuning-fork shows no impairment in the auditory nerve. Mr. M. has been under the treatment of two general practitioners and three specialists for the greater part of two years. One gentleman seized a substance within the auditory canal with forceps, which he broke in attempting to deliver a mass which he regarded as a foreign body. Another stated that a series of operations would be required to give relief. Mr. M. denies that he ever placed a foreign body in his ear, that any foreign substance had gained access to the part.

Examination showed the presence of a thin, purulent discharge. At a point approximately 10 mm. in front of the tympanic membrane is a black mass completely occluding the auditory canal, except at its lower anterior part, where there is a minute passage permitting the escape of pus and the passage of a No. 2 lachrymal probe. On touching the mass with the probe a metallic sound was produced. Tyrrell's iris hook was passed beneath the mass, which was found to be only slightly movable, giving the sensation of almost solid fixation. The diagnosis of foreign body was made and an operation for its removal was advised after a trial of syringing, the use of the hook, etc., had failed. The patient was sent to the Jefferson Hospital, where, with the assistance of Drs. Leo, Caplan and W. B. Shields, the following operation was performed:

An incision three and one-half inches in length was made posterior to the attachment of the auricle. The periosteum was separated from the posterior part of the osseous canal and the auricle detached. A black body was found firmly wedged into the soft parts and lying almost at right angles to the audi-

[1] Buck's *Reference Hand-Book of the Medical Sciences*, N. Y., 1886.
[2] *American Text-Book of Diseases of the Eye, Ear, Nose and Throat*, p. 710. Philadelphia, 1899.

tory canal. This mass was seized with artery forceps and pulled out, considerable force being required for its extraction. It proved to be part of a knife blade, fifteen-sixteenths of an inch long, seven-sixteenths broad and one-sixteenth thick at its base (Figure 2). The auricle was replaced, catgut sutures being used, and a gauze tampon inserted into the auditory canal. Healing was uneventful.

On showing the specimen to the patient he acknowledged that twenty years

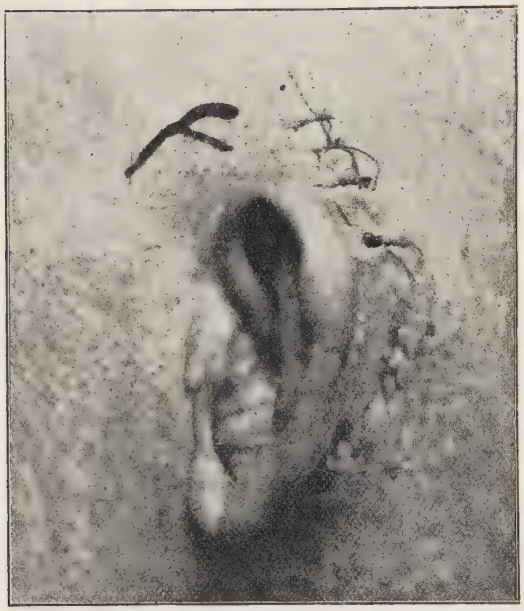

FIG. 1.—APPEARANCE OF WOUND IN DETACHMENT OF THE AURICLE.

The forked black line indicates the wound made by the knife blade. Its width is exaggerated by reason of the "running" of the India ink used in tracing it.

FIG. 2.—KNIFE BLADE (ACTUAL SIZE).

ago, during a fight, he was stabbed with a pocket-knife. Careful examination shows a small scar situated above and in front of the external auditory meatus. In the accompanying photograph the scar has been purposely marked in ink the better to show its location. The patient states that the knife was of ordinary size—*i. e.*, its blade was about two and one-half inches in length—and that the surgeon who attended him regarded the wound as trivial and did not explore it. Evidently the foreign body was a migrant.

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EDITORIAL COMMENT.

THE NECESSITY FOR PURER MILK SUPPLIES FOR OUR CITIES.

This is the time of the year when the summer diarrheas of children are claiming their annual sacrifice of human lives. How great that sacrifice is we do not always stop to consider. In the summer of 1900 the number of deaths among children from summer diarrhea in Baltimore was *three times as great* as that from consumption, the "scourge of the race."

Holt recently collected 1943 fatal cases of diarrhea in children; of these but three per cent. were exclusively breast fed. The association between this disorder and artificial feeding is sufficiently striking. For obvious reasons cow's milk must be the main substitute for infants who cannot be nourished at the breast. And, just as obviously, every attempt should be made to have that substitute as pure as possible. The question of modification of cow's milk is now attracting the attention of pediatrists the world over, but, as Jacobi has well said, clean milk is far more important than any amount of modification.

The milk supply of many of our cities is almost inconceivably bad. Adulteration with water is almost the rule. Owing to the lack of cleanliness in the methods of obtaining and handling the milk, the bacteriological content is enormously high, so that in order to deliver it in any sort of condition the addition of preservatives and coloring matter becomes routine procedure.

Of late years the profession at large has begun to realize the imperative necessity of improving this deplorable state of affairs. The establishment of so-called milk commissions has done much to change things for the better in some places.

It has been demonstrated that it is possible to secure pure, though not absolutely sterile, milk, and it has been shown that dairymen can furnish such milk for general consumption at a fair profit to themselves. "Certified milk"—that is, milk that has been passed upon by a commission of experts— is obtainable in some of our cities. Many institutions, such as the Trinity Diet Kitchen of Chicago, have shown that good pure milk *can* be obtained and distributed to the poor of our larger cities.

The solution of the problem has been pointed out by these examples; it rests with the profession to rouse itself and see that these examples become the rule rather than the exception. For this is a question of the first importance. This is the day of prophylactic medicine. Surely this condition of things should not be allowed to exist any longer.

TENDON TRANSPLANTATION.

While the first attempt to relieve the deformity and give added power in paralytic equino-varus was made in 1881 by Nicoladoni, the transfer of tendons is an old, if forgotten, procedure, dating back to Velpeau and Malgaigne, who employed it, as did others of their time, in traumatic deformities about the hand. Recently interest in tendon transplantation has been renewed by the reports of many American orthopedic surgeons, who have since 1892 employed this operation rather extensively. Beginning as a means for the relief of paralysis due to local loss of tendon, it was next applied to spinal palsies, and more recently, through the enthusiasm and skill of Eulenburg, the field has been enlarged to include infantile cerebral palsies, and this writer predicts that it will soon be used in peripheral paralysis of all kinds. The numerous adaptations of the power transfer idea, whether it be a portion of a healthy tendon grafted onto a paralyzed tendon, or the whole of the active tendon into a paralyzed tendon or onto a new body attachment, or a healthy muscle transplanted into a paralyzed tendon, or a strong muscle to energize a partially paralyzed one, all tend to replace what power has been lost and to prevent further deformity. For a satisfactory result it is not necessary to joint synergic tendons; but if the mechanics of the parts are correct, flexors can be made to do the work of extensors, and *vice versa*, and the point of application of the force may be well away from the normal channels of force. Not unusually the enthusiasm for a new procedure carries the hopes well beyond what is rationally to be expected. So if we judge of the results of tendon transfer by normal function as a standard (in the foot, for instance, by the ability to carry out the normal movements and assume the normal posture when in use), we must conclude that in many instances the operation is essentially palliative, and that it will supplement rather than supplant a mechanical support. On the other hand, in many of the less hopeless cases the results are brilliant, and all apparatus can be dispensed with. The main object of the operation is to remove a force that, if left alone, will only distort and make it act to replace the power lost by the paralysis. It cannot be expected, for instance, that two feeble muscles such as the peronei, when transplanted into the tendo-achilles, will replace the function of the strong calf muscles; but a distorting dorsal flexor has been removed, and in its new endeavor aid progression not only by plantar flexing the foot, but also by holding the bones of the foot in close apposition to the ankle. At the knee, where the sartorius is so

frequently spaced when the quadriceps is lost, its transplantation into the patella tendon above the joint allows almost normal extension and corrects the peculiar flail-twist gait. And, though the later reports show that the early anticipations of the operation's adherents were, perhaps, too sanguine, it is proven that a great general gain is obtained, and the operation never impairs, and so must be classed as classical among the available surgical procedures in this unfortunate paralytic condition.

THE DISREGARD OF FOREIGN LITERATURE.

A writer in a recent German publication scores the English for their disregard of foreign literature. He claims they are constantly bringing forth what they term new ideas and new methods of treatment, which if due reference to foreign literature were made they would be found not only in practice, but oftentimes long since discarded as failures. This he claims to be especially the case in most of their recent writings on otology. Several examples are given illustrating their superficial knowledge of the German medical literature.

The reason for this he cannot explain, but believes it may possibly be due to the fact that Englishmen do not care for any other language but their own, or that they are too busily engaged with their practices.

Be that as it may, instances of this kind are found frequently in other countries as well as England. Even some of the German writers have put themselves on record as ignoring the work done by others, especially anything American.

While this may be in a measure pardonable in communities where library facilities are inadequate, but it is certainly not in Europe, where the libraries are sustained by their respective governments, and everything published in medicine can be found.

Quite different is the situation in our own country, where the government does not aid institutions of this kind.

In some cities private citizens have taken enough interest in the advancement of medicine to establish well-equipped libraries, but unfortunately in our own city the library association does not receive the support and encouragement it should, especially is this true of the medical profession. As long as such apathy exists our library can never be a complete one, and we are prone to be subjected to the same criticism as our English cousins.

ANOTHER "TICK-BORNE" DISEASE.

Theobald Smith proved conclusively that a tick infects cattle with Texas fever by its bite, the organism of that disease leaving the body of the tick and entering the blood of the bitten animal. Ross, Manson, Grassi and other Italian investigators have demonstrated that the mosquito may disseminate malaria by its bite. It is to the efforts of Reed and Carroll, and the self-inflicted martyrdom of Jesse Lazear, that we are indebted for the knowledge that the stegomyia fasciata, a variety of mosquito, conveys the organism—animal or vegetable, whatever it may be—of yellow fever from man to man. The agency of flies in spreading typhoid fever was rather well demonstrated in the camps of mobilization during the Hispano-American war. With these facts before them, sanitarians are preparing to wage vigorous warfare on these epidemic diseases, which ought to be easily eradicated from the literature of medicine as population-

depleting agencies. The watch-word for preventive medicine will be the destruction of these different genera of mosquitos, ticks, and flies.

Of decided interest in this connection is the preliminary report recently made to the Montana State Board of Health by Wilson and Chowning on "The So-called 'Spotted Fever' of the Rocky Mountains" (*Jour. A. M. A.*, July 19, 1902). These investigators made a clinical, pathological-anatomical study and bacteriological research of an epidemic of so-called "spotted fever" in a limited portion of Montana. The disease must not be confounded with "spotted fever" or epidemic cerebro-spinal meningitis, which is caused by the intracellular diplococcus of Weichselbaum. Spotted fever of the Rocky Mountains has been recognized as a clinical entity by local physicians for over fifteen years. The disease has shown a markedly fatal behavior, so far as medical literature in the West can inform us. The most pronounced feature of this affection is a purpuric-like eruption over the entire body, with high fever, which becomes normal and subnormal just prior to death. But little pain is encountered in this disease. The blood shows parasites when freshly examined. In six autopsies made by these two investigators, petechial hemorrhages were found in the epicardium. The spleen was enlarged, and both kidneys showed subcapsular hemorrhages. Histologic examination of the skin in the affected portions showed a congestion of the capillaries, and many red cells in the congested capillaries contained parasites. Bacteriological examinations of the different organs gave nothing characteristic of a special *vegetable* parasite which could have provoked the disease. Direct coverslip preparations from the different organs showed up the parasite. The organism was well stained in the Nocht-Romanowsky blood-staining fluid. The organism showed ameboid movement in the fresh state. It was a body larger than the pyrosoma bigeminum of Texas fever, and it contained no pigment. Rabbits were infected with the organism by injection of 0.5 c.c. of the splenic pulp from one case. The writers will probably give a more complete account of the organism in their final report.

The mode of infection in these cases is of particular import, showing, as it does, a resemblance to the manner in which Texas fever is spread, namely: that each of the patients with spotted fever showed evidences of having been bitten by ticks. There are no instances on record of spotted fever having been conveyed from man to man directly. The following facts have led these writers to believe that spotted fever is transmitted through the medium of the bite of a tick:

1. Ticks do not become very numerous in the region in which this epidemic occurred until the latter part of April. At this very time the epidemic took place.

2. Ticks disappear about the middle of July. At that time cases of spotted fever also began to die out, there being no new cases after the 20th of July.

3. The fact that spotted fever occurred in a region confined to a small space, limited sharply to one side of a river, indicates that if due to a parasitic animal acting as an intermediate host, that host must be one which travels slowly and not widely; such a host would be the tick.

4. All hematazoon of warm-blooded animals pass through one stage of development in the body of an intermediate host.

5. There are three distinct genera of ticks in the region in which these cases occurred, any one of which may be the intermediate host of this protozoon.

6. All of the patients had been bitten by ticks.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Recent Results from the Use of "Cancroin" in Carcinoma of the Tongue, Larynx, Esophagus, Stomach and Breast.—ADAMKIEWICZ, Vienna (*Berliner Klinische Wochenschrift*, June 16, 1902), reports a number of cases of carcinoma treated with "cancroin." The results here described show the practicability of his treatment, based upon the parasitic theory of cancer.

A case of cancer of the tongue, in which the tumor completely filled the oral cavity, rendering eating, drinking, speaking, etc., almost impossible, yielded very promptly to the injections of "cancroin." The disease had existed for three years. Eight weeks' treatment—sixteen injections—brought about an absolute cure. The tumor and its metastases disappeared entirely and all subjective symptoms were relieved.

A case of cancer of the larynx was taken in hand after large tumors had developed on the neck and tracheotomy had been made. At the time of this report, viz., after one month's treatment, the tumors were rapidly disappearing, the patient was gaining strength, and symptoms of obstruction, etc., were being relieved.

A case of cancer of the esophagus in a woman thirty-nine years of age was also promptly relieved. Symptoms of esophageal obstruction caused her to apply at the Breslau clinic. Carcinoma was demonstrated through the esophagoscope by Prof. Eiselsberg, and gastrostomy was made. No improvement being noted the patient came to Vienna. Within five days after cancroin injections were begun the tumor, which was of four months' standing, began to decrease in size, and with it the symptoms decreased in severity. Within six weeks the patient was able to swallow solid as well as liquid diet, the tube was removed and the fistula closed. The patient returned home and was gaining about a pound a week.

A patient, thirty-eight years of age, presenting marked gastric symptoms, vomiting, pain, loss of weight, etc., applied at the Nothnagel clinic for treatment. A diagnosis of cancer of the stomach was made. The patient was told that nothing could be done for her and she was advised to return to her home. She afterwards applied to the author, who recognized the importance of acting promptly. After the first injection decided improvement was noted. Within one month all symptoms had disappeared and the patient returned to the Nothnagel clinic practically cured.

Two cases of cancer of the breast are reported which had been operated upon, recurrence followed, and the patients were pronounced lost by some leading authorities. In both of these, cures were effected.

Remarks on the Paper of A. Adamkiewicz on "Recent Results from the Use of Cancroin in Carcinoma of the Tongue, Larynx, Esophagus, Stomach and Breasts."—NOTHNAGEL, Vienna (*Berliner Klinische Wochenschrift*, July 14, 1902), feels called upon to make some explanation concerning case No. 4, in the report of Adamkiewicz (see above abstract—Ed.). The record in his clinic shows their diagnosis to have been "cystopyelitis, anaciditas, (Ca?)" At that time the patient presented symptoms which pointed to the possibility of the existence of carcinoma of the stomach, viz., emaciation, vomiting after eating, very pale,

pain in the region of the stomach upon pressure, and no free hydrochloric acid in the stomach contents. He lays special stress upon the fact, however, that an absolute diagnosis was not ventured, because of the absence of a tumor, lactic acid, etc., and that the symptoms present were such as might characterize also a functional disturbance in which there existed an anacidity. He does not recall what was said to the patient, but it is not his practice to give to hopeless cases such statements as are attributed to him in this report. Attention is called also to a letter which was received from the patient after her return to her home "cured," requesting that he send something to relieve her vomiting.

Observations on the Paper of Professor Adamkiewicz: "Recent Results from the Use of Cancroin," etc.—VON EISELSBERG, Vienna (*Berliner Klinische Wochenschrift*, July, 14, 1902), calls attention to the case of carcinoma of the esophagus mentioned in the article of Adamkiewicz (see above abstract—Ed.) in which he claims to have brought about a marked improvement through injections of "cancroin."

When the patient applied at the clinic she was being fed through a gastrostomy fistula. The esophagoscope revealed a cauliflower excrescence at the cardiac end of the stomach. There could be no doubt as to its malignancy. No sections were made. It is reported that she improved greatly on cancroin injections and returned to her home. The author thinks it quite probable that this improvement was due to the sloughing away of part of the tumor, which so frequently happens in carcinoma of the esophagus.

With but one exception (see following abstract) no permanent results have been seen from the use of cancroin. Most of these cases have been reported by Adamkiewicz alone, when but a few weeks had elapsed since the employment of the injections. The author bases his opinions upon the destructive criticism of Billroth, Albert, Kaposi, Kundrat, etc., upon occasions when Adamkiewicz's "results" were presented before medical bodies.

A Case of Carcinoma Cured by Injections of Adamkiewicz's Serum (Cancroin).—KUGEL (*Berliner Klinische Wochenschrift*, June 16, 1902) reports a case of carcinoma of the breast in a patient fifty-three years of age. The first evidence of the growth manifested itself ten years ago as a small nodule in the left breast. This was removed. Three more operations were done within the next six years, in which the axilla was cleaned out and two-thirds of the breast was removed because of metastases. The whole breast was finally removed. Repeated microscopical examinations of the tumor and lymphnodules showed the growth to be carcinoma. After two years metastases appeared in the left supraclavicular space, the fourth costal cartilage was pushed forward, a nodule appeared in the other breast, the left arm became painful and edematous. There was a difference of opinion as to the advisability of another operation among the Bucarest surgeons and the patient was taken to Vienna. Here, further surgical interference was pronounced useless. The serum of Adamkiewicz was then employed in the treatment of the case, and was continued for a number of months. The pain and edema began to decrease after the first injection, and further development of the nodules was brought to a stand-still. When the injections appeared to have no further effect upon the tumors they were discontinued. About two months later the nodules and the infiltration began to decrease rapidly, and within a period of one month had disappeared. The nodule in the supraclavicular region, which had grown to the size of a hazelnut, the nodule in the right breast, the protrusion of the fourth costal cartilage, as well as the cancerous infiltration of the right breast disappeared entirely and have shown no signs of recurrence in the past four and a half months.

The author concludes with the assurance that there can be no doubt as to

the nature of the growth. The patient was observed clinically by most competent authorities, and microscopical sections were examined by most experienced pathologists. He concedes, however, that it was not one of the most malignant types of carcinoma, as is shown by the length of time of development.

The Treatment of Carcinoma with Cancroin (Adamkiewicz).—POTEN, Hannover (*Berliner Klinische Wochenschrift*, July 14, 1902).—It has been twelve years since Adamkiewicz first recommended the use of cancroin in carcinoma. The matter has received little attention because of the incompleteness of the reports. A recent paper by Kugel prompted the author to try it in two cases. The first was a case of inoperable carcinoma of the uterus. The injections were continued for a period of one month, in fact until the patient died. Frequent examinations were made during the time, but no changes were noted either in the size of the tumor nor its microscopical appearance. Change in the structure of the carcinoma, a diminution in the size of the cell-nests, necrosis of the cells nor any other manifestations of retrograde changes in the growth could be noted.

The second was a case of recurrent carcinoma of the breast. In spite of the treatment, the tumor was unabating in its growth. The injections caused no change either in the character of the tumor or the subjective symptoms produced thereby.

In view of the wonderful results published by Adamkiewicz, the author suggests that the preparation should be more generally tested

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A Large Myoma of the Uterus, Undergoing Carcinomatous Degeneration, Treated with Cancroin (Adamkiewicz) Without Result.—SCHULTZ, Schultzenstein (*Berliner Klinische Wochenschrift*, July 14, 1902) employed cancroin in the treatment of a case of inoperable carcinoma of the uterus, which developed on the base of a myoma. One-half ccm. to one ccm. was injected daily for four months without any results. After each injection the patient became very dizzy, and was compelled to lie down. Otherwise no unpleasant symptoms arose from the injections. During the entire treatment seven bottles were used, each containing ten ccm. Some influence seemed to be exerted upon the enlarged inguinal nodes through the treatment, inasmuch as they would decrease and enlarge as the injections were continued or discontinued. Whether any inhibitory action was exerted upon the growth during this period cannot be definitely stated. It can be said, however, that the cancroin exerted no curative action in this case.

Asthma Dyspepticum.—EINHORN (*Zeitschrift fuer Klinische Medicin*, vol. xlv, parts 5 and 6, 1902) considers the term "asthma dyspepticum" applicable only to those cases of asthma in which the thoracic organs are found in a perfectly normal condition, but which seem to bear a definite relationship to the digestive organs. In this particular he does not agree with certain other authorities. When the heart or lungs are involved, he does not feel justified in attributing an asthmatic condition to digestive disturbances, even though the symptoms bear a certain relationship to the ingestion of food. It is quite apparent that a full stomach aggravates dyspnœtic symptoms, whatever the source.

The author includes in his report thirty-one cases of "asthma dyspepticum" in which the thoracic organs were apparently in normal condition. These are divided into two classes: (1) Cases in which the asthmatic symptoms arise periodically in acute form, and (2) those which take on a more or less chronic type. The first class is characterized by periodical attacks of asthma either without any apparent cause, or following excesses in eating, drinking, etc. These are usually very severe, and manifested by dyspnea, cyanosis, collapse, etc. The second class includes by far the greater number of cases, and may be divided into (*a*) those which occur shortly after eating, without any definite

cause or following slight exertion, and (*b*) those which occur two to three hours after eating. The former (*a*) resemble greatly cases of angina pectoris due to arterio-sclerosis, and are frequently differentiated from them with great difficulty.

Gastric analyses were made in many of the cases. Though no constant disturbance was found, it seems rather remarkable that in a large number of cases achylia gastrica was determined, while in another series hyperchlorhydria. These two conditions are exactly opposite to one another. The treatment indicated in each invariably gave relief to the asthmatic symptoms. In either case, the author thinks the asthmatic symptoms due to gastric irritation; in hyperchlorhydria it is due to an excessive amount of acid, while in achylia gastrica it is due to the undigested food particles. In those cases in which the gastric secretions were found normal, one must assume the existence of a hyperesthesia of the stomach.

Hepatoptosis was found in a number of the cases, and in all probability had much to do with the development of the asthma through the effects of such a displacement upon the diaphragm.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Use of the Intestine as a Urinary Receptacle.—DRUCBERT (*Archives Provinciales de Chirurgie*, Tome xi, Nos. 5 et 6).—This most valuable review of the work which has been done along this line is prefaced by a few interesting physiological deductions. The fact that the human embryo as well as the adult of many animal species have a cloaca, was the inspiring cause of surgeons first attempting to drain the ureters into the intestine. An analogous condition has been congenital in a few instances, or has been brought about by the perforation of a vesical calculus into the rectum. A few of those thus afflicted have survived the condition without apparent ill effects. The five dangers of an operation which contemplates the implantation of the ureters into the intestine are peritonitis, insufficience of the suture, intolerance of the rectal mucous membrane, stenosis of the ureteral outlet, and ascending pyelo-nephritis. Section of the ureter high up is much more dangerous than if the lower end be involved in the operation, since the last-named portion of the tube has a somewhat sphincteric action. Various methods of anastomasing these structures have been tried: lateral implantation, direct implantation of the free end, oblique implantation after the manner of the entrance of the healthy ureter into the bladder, and anastomosis with a button. This last has given the most satisfactory results, and must be considered the best in an accident. Vesico-rectal, as well as vesico-vagino-rectal, fistulæ have been purposely established, but without satisfactory results. Implantation of the trigone and ureters, inclusive, has given far better results than any of the other operations mentioned above. Especially is this true of the human subject. The author tried it on nine dogs, of which only one lived a year. The chief reason for the ascending pyelo-nephritis is the reflux of urine from the bladder, this due to the pressure generated in the strain of defecation. The author sums up his review by stating that this manner of emptying the ureter is generally unsatisfactory at best; hence the operation, however done, is to be regarded only as one of necessity. Where a ureter for any reason cannot be implanted into the bladder, it is best, if an external fistula is not desired, to remove the kidney or ligate the ureter, provided, of course, a healthy organ is known to exist on the opposite side.

Anchorage of Tendons in Partial Foot Amputations.—Cale (*The Railway Surgeon*, July, 1902.)—The author relates the histories of two cases which illustrate the value of the point under discussion. The first patient was a railway conductor, the forepart of whose foot was torn off at Chopart's joint while he was attempting to couple some cars. To give the man a useful ankle-joint, Doctor Cale sewed the tendons of the foot to the plantar of the sole flat. The patient's recovery was uneventful and the ankle-joint is unimpaired in usefulness, while in walking the man limps no more without than he does with an artificial foot. At present he wears an ordinary pair of shoes by simply stuffing out the empty portion of one with curled hair.

The same principle is illustrated in a second case treated by the same author. This patient was a brakeman on whom a Chopart amputation had to be done. The tendons were anchored in similar manner, and the result, both anatomically and functionally, is equally as good as that in the first case.

In closing his article, Doctor Cale makes the assertion that, in his belief, these tendons should be invariably fastened to the periosteum, or some of the other structures of the sole, in order to guarantee a useful foot and ankle.

Indications and Prognosis of the Operations for Rectal Carcinoma.—Jaffe (*Archiv fuer Klinische Chirurgie*, Bd. lxvii, Hft. 1.)—The author lays particular stress on the fact that the best way to examine a rectal tumor is with the finger, unaided by speculum or other mechanical contrivance. If the growth be very high, it may be advisable to introduce the entire hand; but this has its disadvantages, and is further not necessary in most cases. In order to get the very best results, the patient should be in the standing position and press down as hard as possible; in which event the examiner can feel a mass which would escape him if any other method of investigation were used. If the anal portion must be removed at the operation, it is helpful to make a transverse incision in the perineum, and from this dissect the anterior wall of the rectum in very much the same way as one does when removing a prostate. When the tumor is as high as four and one-half cm. above the anal ring, it is possible to save the latter and make a circular enterorrhaphy; but this latter can be done only in case there is no tension on the stitches. Where there is no lymphatic involvement, the permanent results are about twenty per cent. to thirty per cent. of cures, and the mortality about five per cent. to ten per cent. It must be said, however, that the ultimate prognosis in woman is better than in man.

A Case of Cerebral Hemorrhage Following Chloroform Anesthesia.—Boureau (*Revue de Chirurgie*, July, 1902).—The patient under discussion presented herself for an operation for two small tumors, one on the forehead and the other on the neck. During the procedure the patient showed no effect of the chloroform other than that usually seen under similar circumstances; in fact, there was no failure in respiration at any time, and, indeed, no vomiting at all. However, when she was placed in bed it was noticed that she was extremely pale, that the respiration was labored, the pulse small, and the extremities cold. In a few hours the condition improved somewhat, and at the same time it was noticed that she had a partial one-sided paralysis. From the fourth day, however, she improved in this last main respect and at the end of several weeks was entirely recovered from its effects. If she had died from the cerebral hemorrhage while under chloroform, there is no doubt that this would have been accounted another death due to chloroform, and the explanation of the case would have been no clearer than is usual under such circumstances. The author's explanation for the conundrum is that the chloroform produced an intense hyperemia of the vessels of the brain, and that one of the same burst during the stage of excitation which is so well known.

The Surgical Treatment of Ascites Due to Serosis of the Liver.—Baldwin (*Journal of the American Medical Association*, July 26, 1902).—The author relates the history of three cases, in the first of which there was a slight accumulation of fluid; the omentum was attached to the peritoneum, after which the patient made a prompt recovery and was at the time of writing perfectly well.

In the second case there was a large amount of fluid and the same operation was done. At first there was some reaccumulation of fluid, but on the fourth week the woman went home perfectly well; however, she died of exhaustion three weeks later, but the fluid had not returned.

The third patient was a drunkard with a large amount of fluid. After an attachment of the omentum the fluid reaccumulated and the patient died a few months later.

Here seems to have been one good result out of three cases, but in this one it must be added there was next to no fluid to begin with, although at the time of operation the liver was seen to be markedly hob-nailed.

Extensive Intestinal Resections.—Payr (*Archiv fuer Klinische Chirurgie*, Bd. lxvii, Hft. 1).—The author recites the history of the case in which he removed 295 centimeters of the small intestines for gangrene. The patient recovered from this severe operation and manifested no functional symptoms as late as nine months after the procedure. There can be no definite rule laid down in the individual case as to the amount of intestine which it is possible to remove without incurring serious physiologic consequences; the size of the individual as well as other factors too numerous to mention have a bearing upon this matter. The serous fluid which the author found filling the abdominal cavity in his case he regards as non-inflammatory and compares it to that usually found in the sack of a hernia. Usually this fluid is to be regarded as possessed of antitoxic properties, the same to be accounted for as is done by Prof. Bier in his treatment of tuberculous joints.

Three Cases of Inguinal Hernia of the Cecum and Appendix in an Incomplete Sack.—Berard and Bignard (*Gazette des Hopitaux*, July 10, 1902).—Here are reported three cases of this variety, the first of which was complicated by an acute inflammation of the appendix. It was not possible to replace the intestine at the primary operation, so a secondary one had to be performed for the radical cure of the hernia.

In the second case of this variety it was also impossible to make a complete dissection, although the appendix was not diseased. The patient incurred an acute pneumonia a few days after the procedure, but finally made a good recovery even in spite of this.

The third case was one of strangulated hernia. After relieving the cecum there was found the condition of diverticulum of the peritoneum containing neither omentum or intestine. In this patient there was a chronically inflamed appendix as well as cryptorchysm. In spite of all these complications the wound was completely closed by first intention.

A New Protective Dressing.—Springer (*Centralblatt fuer Chirurgie*, No. 24, 1902).—The very ingenious idea of the author is to substitute paraffine for rubber tissue as a covering for granulations, grafts and other sensitive structures which it is deemed wise to protect from the direct contact with gauze, etc. A small piece of paraffine is placed on the surface of water warm enough to melt it, whereupon it forms a thin film, which can be handled at will as soon as the water has cooled. The double advantage is apparent, that the material is cheap as well as sterile, provided the water is merely hot enough.

Why Should We Not Treat the Gall-Bladder as We Do the Appendix?—Park (*American Medicine*, July 12, 1902).—Park describes the anatomic and functional resemblances between these two hollow organs, and upon this bases the conclusion which are implied in the title of the case. He speaks, further, of the auto-intoxication which results from a retention of the products or contents of either. He says, furthermore, that the accidents and the diseases of both are in a measure similar; further than this, the symptoms of the two are in a great measure the same. The derangements of the gall-bladder affect the stomach just as those of the appendix affect the cecum. Now, Park reasons that similar treatment applies to diseased conditions in both the gall-bladder and appendix, since the structure, functions, diseases and symptoms are so closely alike in the two instances. He rarely leaves behind a diseased gall-bladder when operating upon for any cause whatsoever. In closing, he describes the diseases of the gall-bladder with much wider limits, as far as operation is concerned, than has been the case with most surgeons hitherto.

Two Cases of Typhoid Perforation Treated by Laparotomy and Cured.—Bazy (*Bul. et Mem. de la Soc. de Chir. de Paris*, Tome xxviii, No. 2).—These two rather unusual operations were performed in two days, and both patients made excellent recoveries. In the first the treatment was inaugurated eight hours after the perforation; twenty minutes were required, the opening being found about fifteen cm. from the cecum. In number two, the perforation was twenty-five cm. from the cecum; this operation also required twenty minutes for its performance, but was done only six and one-half hours after the onset of the pain. This is distinctly a surgical triumph in two cases which must otherwise have almost certainly turned out fatally.

Gangrenous Intussusception in a Child Four Years Old; Intestinal Resection; Recovery.—Dowd (*Annals of Surgery*, July, 1902).—The most remarkable thing about the author's case is that the symptoms continued ten days before the surgical treatment was instituted. A gangrenous intussusception was found and the same excised, the intestine being joined end-to-end by a double row of silk sutures. The next day was marked by a spontaneous movement of the bowels, and in four weeks the child was up and well. The amount of physical depression in this case was surprisingly small, the patient being out of bed just before the operation and calling for indigestible food. The author is strongly in favor of a suture which passes through all the layers of the intestine, and adds evidence to the fact that even where reinforced by a second row no diaphragm is produced permanently.

Rupture of the Vena Cava Inferior in the Course of a Nephrectomy.—Houzel (*Bull. et Mem. de la Soc. de Chir. de Paris*, Tome xxviii, No. 18).—The case was one of pyonephrosis of about ten years' standing; the author had drained the tumor about one year previous to the date of the operation under discussion. After the sack had refilled it was decided to remove the mass, and after the ureter had been divided, upon the exercise of considerable tension, the pedicle torn partly through, but the bleeding was checked by the use of forceps. When it was seen that the injury was of the nature of a rent in the vena cave an attempt was made to suture the same. This proving unsuccessful, the vessel was ligated above and below the lesion, whereupon the patient made a good recovery. No distension of other veins showed wherein the compensation had consisted.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Sugar as an Article of Diet for Dyspeptics.—W. G. MORGAN (*Archiv f. Verdauungskrankheiten*, 1902, p. 152).—In a series of careful experiments, Morgan has endeavored to ascertain the effect upon gastric digestion of quantities of sugar so large that they have usually been considered harmful. The observations were made upon four sorts of individuals: (1) A healthy day laborer; (2) two cases of hyperchlorhydria; (3) a case of gastritis chronica mucosa; (4) a case of achylia gastrica. The results were as follows:

1. The stomach contents of the healthy individual, after an Ewald meal, showed a total acidity of 50 with free HCl 40; when 90 g. cane sugar and 180 g. maple syrup were added to the breakfast, the total acidity fell to 25 and the free HCl to 12.5; 90 g. cornstarch pudding added to the test meal showed a total acidity of 32.5 with free HCl 5; 10.3 g. cane sugar, a total acidity of 30, free HCl 20; 10.3 g. sugar and 90 g. maple syrup, a total acidity of 25, free HCl 12.5. The patient, however, continued during the entire series to feel perfectly well.

2. Both cases of hyperchlorhydria showed similar results. In the first a total acidity of 115, free HCl 100, fell, upon the addition of 24 g. cane sugar and 90 g. maple syrup to his daily diet for ten days, to total acidity 60, free HCl 40. In the second, 20 g. cane sugar, three times daily for a week, reduced the total acidity from 65 to 40, and the free HCl from 52.5 to 20. Under this regimen their condition improved markedly, the appetite improved, ructus and pyrosis disappeared, as did also all gastric distress; their stools, which had been costive, became normal. When the sugar was left off again, all the disagreeable symptoms accompanying hyperchlorhydria reappeared. When they took brandy in addition to the sugar diet, the beneficial effects of the latter failed to appear.

3. The third group of experiments were made upon a diabetic whose urine contained four per cent. of sugar (109 g. daily) and whose stomach contents showed a total acidity of 20, no free HCl, much mucus. He was made to take, in addition to his regular diet, 60 g. of New Orleans molasses and 16 g. cane sugar with each meal. After a week the stomach contents, taken after an Ewald breakfast, not only an *increase* of total acidity to 35 with free HCl present, but a fall of the glycosuria to one per cent. (26 g. daily). Subjectively, too, the patient was much improved. A return to his former diet caused a return of his former distress and of the former hypoacidity; when the sugar was again added to his diet, the same improvement took place.

4. The case of achylia gastrica was practically unaffected by the sugar diet.

For other incidental observations made in connection with these experiments, the reader must be referred to the original. It may be mentioned, however, that in all the observaions the gastric peptonization of proteids was found to be hindered by the sugar; in the case of gastritis mucosa, the formation of mucin in the stomach was much diminished.

As regards the conclusions, the beneficial effect of a sugar diet is well-known, and has been confirmed by Strauss and others. Its action on gastritis chronica mucosa is of great interest, but requires further confirmation.

It is fair to add that this article, though published this year, was read before the American Gastro-Enterological Society in May, 1900. It seemed, however, of sufficient interest to warrant abstracting here.

The Place of Drugs in the Treatment of Stomach Troubles.—BOARDMAN REED (*Mobile Med. and Surg. Jour.*, 1902, No. 6, p. 349).—The place of drugs in the

treatment of many stomach troubles is in the drug store. This is true particularly of certain affections, such as some of the forms of nervous dyspepsia, and of gastralgia, which are frequently merely symptomatic of disease in the nerve centers or elsewhere. More hygienic habits and a more physiologic way of living, aided by a period of partial or complete rest, and, when necessary, by electricity, especially the galvanic or high tension faradic current intragastrically, light exercise, either active or passive or both, and by the judicious use of water internally and externally, will cure most cases of neurasthenia with very few or no drugs, whether the gastro-intestinal tract or other regions be prominently implicated.

The administration of alkalies is generally necessary in excessive secretion of the HCl of the gastric juice. When the bowels are not in need of a laxative, sodium bicarbonate in doses of from fifteen to sixty grains, given two hours after each meal, and in the worse cases combined for a week or two, at first with small or moderate doses of either belladonna or atropin, will usually be most useful. In many cases, especially where there is constipation, magnesia acts better than soda. When the hyperchlorhydria is due to a gastric ulcer, rest in bed with rectal feeding, followed by the gradual and careful administration of bland food by the mouth, will accomplish brilliant results. Massage of the abdomen is contraindicated not only in ulcer, but also in cases of hyperchlorhydria.

In the opposite condition of a deficient secretion of the gastric juice, especially of the HCl—such as obtains generally in old cases of chronic gastric catarrh of the atonic type—an entirely opposite line of treatment is necessary. In many of these cases nothing effects such prompt beneficial results as the administration of dilute HCl in doses of from five to thirty drops. Sometimes, however, even moderate doses produce a very disagreeable burning pain in oversensitive stomachs, and it is necessary, therefore, in these cases, to administer it a little at a time. The appropriate dose should be added to half a tumblerful of water, and taken in sips every few minutes during the hour following each meal. Massage of the abdomen and also exercises for the trunk muscles are now medicinal measures which help to restore the secretions of the gastric juice when the peptic glands have been impaired but not destroyed.

In atrophy, strychnin may be useful to assist in overcoming any coincident deficient motor power (which is an especially serious complication here), though gymnastics, massage, hydrotherapy, electricity, and especially intragastric faradism, will accomplish more.

For the graver forms of dilatation due to tumors in or near the pylorus, surgical intervention alone can be effective, though lavage with antiseptics may palliate for awhile.

In chronic atonic gastric catarrh, bismuth and carbolic acid will generally accomplish as much as any remedy, administered per os, but lavages every day or two with a combination of soda and common salt in the first wash water (a teaspoonful of each to the quart), followed by a weak solution of alum (grains thirty to the quart), silver nitrate (grains ten or fifteen to the quart), or other antiseptic astringent, can do still more in skilled hands; and the diet is all-important. These solutions for lavage should be followed by washing out with a pint, at least, of plain warm water; and in the case of the silver salt with a solution of sodium chloride.

In displacements of the stomach, unless the organ has been pulled down by a morbid growth, there is usually no need of surgery. Strychnin and diet will do something; abdominal supports, gymnastics, massage, electricity, and hydrotherapy can do very much.

Therapeutics of Chromium Sulphate.—Louis Kolpinski (*Therapeutic Monthly*, 1902, No. 6, p. 209).—The use of chromium compounds has hitherto been con-

fined nearly entirely to that of chromic acid as a caustic and antiseptic, and to the internal administration of potassium bichromate. The latter as well as the former is a violent irritant to mucous membranes, and the gastro-intestinal disorders following its use have made its administration almost obsolete. Believing that chromium possesses valuable therapeutic properties, the writer has used the green chromic sulphate—$Cr_2(SO_4)_2 + H_2O$—in a considereble number and variety of diseases for a period of about four years. Chromic sulphate has an acid taste, a metallic after-taste. It dissolves slowly in water and in alcohol; in the quantities used for clinical purposes it shows no physiological effects on man in health. Its dose is from one to four grains t. i. d.

The most successful results were obtained in certain nervous disorders, such as functional impotence of young men, castration—menopause, nervous vomiting, neurasthenia, and so forth. A number of interesting cases are related illustrating the action of the drug.

It must, however, be remembered that the originator of a treatment is rarely able to exercise an objective judgment as regards its success. In none of the cases related by the writer can the effect of suggestion be disregarded. Nevertheless, the work already done warrants other clinicians in making further tests of the efficiency of this drug.

Quinine as an Antiseptic.—H. MARX (*Muench. Med. Wochenschr.*, 1902, No. 16).—As a result of his investigation of the influence of quinine on the growth of bacterial cultures, Marx found that quinine was an excellent antiseptic, being more active in this respect than either carbolic acid or formol. Applied to an infected wound, either in powder or in solution, it quickly arrests suppuration. It is moreover an efficient hemostatic. For this purpose it is well to mop the bleeding surface with a one per cent. solution, which may be put up as follows:

℞ Chinin. hydrochloric 5.0
Spirit. rectificat 15.0
Aq. dest ..... q. s. ad 500.0

Iodipin-Phosphor.—ROBERTS BARTHOLOW (*American Medicine*, July, 1902, p. 142).—Iodipin is a combination of iodin and oil of sesame. In commerce it appears in two strengths—ten per cent. and twenty per cent. It represents probably the most easily tolerated form in which iodin can be administered internally. Iodipin-phosphor contains one-fiftieth grain of phosphorus in ten minims of iodipin of twenty-five per cent. strength. It is a dark reddish-brown oily liquid, having an odor of garlic. It is best administered hypodermically, the dose for an adult being twenty minims.

It has been observed on the continent that the largest doses of iodipin do not cause iodism. This is explained by the character of the combination of the iodin and the sesame oil, whereby the former is given out so slowly that systemic effects do not appear. Nor has the writer seen any of the toxic symptoms due to the action of the phosphorus, although he has used as much as one-tenth of a grain repeatedly. Without any pronounced systemic action, iodipin-phosphor promotes in a marked degree the nutrition, increases the body weight, and removes or modifies the symptoms of various nervous affections not readily amenable to treatment. The cases thus favorably affected were examples of spinal sclerosis, anterior and posterior, neuralgia, neurasthenia, gout, chronic rheumatism, etc. It promises to be a valuable remedy in pulmonary tuberculosis and other wasting diseases. A fuller discussion of its physiologic and clinical aspects is promised in a future paper.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

R. B. H. GRADWOHL, M. D.

The Microscopic Examination of Conjunctival Discharge.—EDGAR S. THOMSON (*Pediatrics*, July 1, 1902).—Thomson gives an account of the morphologic characteristics of the bacteria and pus cells commonly found in the conjunctival discharge. The bacteria found in this situation are the gonococcus of Neisser, the diplococcus intracellularis of meningitis (Neumann and Schaeffer), the Klebs-Loeffler bacillus of diphtheria, the bacillus of Weeks, and the staphylococcus in its various varieties. Other more uncommon bacteria found are the diplobacillus of Morax and Axenfeld, the xerosis bacillus of Colomiatti, the pneumobacillus of Friedlander, the streptococcus, the tubercle bacillus, the colon bacillus, and others. Thomson claims to get much valuable information from simple smear preparations without culture experiments. He states that the pus should always be taken from the cul-de-sac after the lower lid is everted. Pus from the edge of the lid should never be taken, as it is apt to be contaminated with extraneous bacteria. Smears should be gently made, so as to avoid destroying the relationship between bacteria and pus cells.

The varying elements found are the large pus cells with deeply stained, irregular, sometimes multiple nuclei, and faintly stained cell substance; sometimes we see a large squamous epithelial cell with a small round nucleus. Strings of mucus are also seen. The severer the discharge, the more pus cells do we find and the less mucus, but as the process subsides the mucus becomes more plentiful and the pus cells less.

He details the usual appearance of the gonococcus—biscuit-shape, etc. The bacillus of Weeks is the commonest bacterium found in the ordinary case of pink-eye. It is a short, thin bacillus, shorter and slightly thinner than the tubercle bacillus, and stains to nearly the same intensity as the pus cells, usually a very little deeper, but not so deep as the pus nuclei. It is, therefore, not as conspicuous as other more deeply staining bacteria, and the slide must be closely and carefully examined. It occurs between the pus cells and the strings of mucus.

In cases of doubt, of course cultures should be made.

The Tuberculin Test as a Possible Aid in the Diagnosis of Addison's Disease, with Report of Case.—ROBERT REULING (*Maryland Medical Journal*, July, 1902).—Taking advantage of the fact that Addison's disease is often associated with tubercular lesions, Reuling used the tuberculin test in a doubtful case of Addison's disease at the Johns Hopkins Hospital. The patient responded to the test, getting a marked rise in temperature and a local reaction at the point of injection. He advocates the use of this measure in suspected doubtful cases of this disease where there may be an associated tuberculosis. In this particular case there was no tuberculosis of the lungs, so far as the physical signs elicited from the chest and a microscopic examination of the sputum could reveal.

Most clinicians are agreed upon the point that tuberculosis is often met with in cases of Addison's disease. Lewin found in his analysis of 285 cases of Addison's disease that 211 were associated with tuberculosis of the suprarenal capsule.

[An admirable contribution to the pathologic anatomy of morbus Addisonii, showing the relationship between tuberculosis of the suprarenal capsule and this disease, is that of Rosenstein, in the *Pathologisch-Anatomischen Arbeiten*, from the Institute of Pathology in Posen. This writer showed in a number of cases of Addison's disease that the tuberculous affection of the suprarenal capsule was

undeniably the pathologic-anatomic foundation for the symptom-complex, as demonstrated by numerous necropsy findings.—Ed.]

On the Cultivation of the Virus of Variola.—T. Ishigami (*The Sei-I-Kwai Medical Journal*, Tokio, May 31, 1902).—Ishigami conducted a series of experiments with a number of protozoa found in variola lymph and its scabs, humanized vaccine virus, vaccine lymph, and the scabs of vaccinia. He found no bacteria in these situations which were characteristic. All inoculation experiments on calves with these different bacteria were negative. The protozoa found were green, shining, round or elliptic unicellular bodies possessing nuclei. In the younger stage they have ameboid movements and invade the epithelial cells, there becoming quiescent. They multiply in two ways—first, by division; and, secondly, by cyst formation, the contents of the cysts forming numerous sporozoites by a process of division. They therefore belong to the sporozoa. These sporozoa can be cultivated in a special artificial medium made with epithelial cells of a non-vaccinated animal. By inoculating this artificial culture into calves, we get vaccine vesicles accompanied by a fever, after a period of three or four days. These vesicles resemble ordinary vaccination vesicles. Calves inoculated with this artificial culture are completely immunized against the vaccine virus. By inoculating other calves with lymph from the vesicle produced by this culture, we can produce typical vaccine vesicles possessing protective power against variola. Ishigami therefore claims that these sporozoa produce variola.

What Shall we Teach the People in Regard to Tuberculosis?—George W. Webster (*Medicine*, July, 1902).—Webster gives the essentials of a paper which he will send out to the inhabitants of the State of Illinois, teaching them some facts about tuberculosis. The writer is president of the State Board of Health of Illinois. These circulars will be sent to the newspapers as the educators of the public, to local boards of health, to teachers and principals of schools, to all physicians in the State, to families and friends of families where tuberculosis exists.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

Quinine in Pregnancy Complicated With Malaria.—A. Maggi (*La Clinica Ostetrica*, April, 1902; rev. *Jour. of Obst. Brit. Emp.*, July, 1902).—Twenty cases are recorded in which quinine was given freely for malaria in pregnant women without in any instance producing abortion. Maggi dwells on the dangers of not giving quinine in such cases; and he cites one instance in which fetal death and abortion at the sixth month of pregnancy occurred, presumably from the malaria, the medical attendant fearing to use quinine. In the cases in which quinine was given the infants were healthy and robust. The drug was administered by intramuscular injection in the form of the bichloride. Instead of producing abortion, the quinine in these cases prevents it, and also saves the patients from the cachexia and anemia of malaria.

A Case of Pregnancy Complicated by Pyonephrosis.—Charles Greene Cumston (*N. Y. Med. Journal*, June 28, 1902).—The author describes the following instructive case: Patient, twenty-nine years old, multipara, was referred to the writer with the diagnosis of uterine tumor complicated by pregnancy. Upon

examination patient was found to be at the end of the fourth month of pregnancy. The right side of the abdomen was occupied by a tumor. Percussion dullness extended directly from the uterus to the growth, and above; the liver dullness continued directly with it. Ascites could not be proved. Examination of the urine revealed albumen and pus, but no casts could be detected. Catheterism of the ureters showed that the urine coming from the left kidney was perfectly normal, while that from the right contained all the pus, and a diagnosis of right pyonephrosis was made. By means of a long lumbar incision 1500 c.c. of thin, purulent fluid were evacuated. By deepening the incision another pocket was emptied containing 300 c.c. of thick pus. The cavities were irrigated and drained. The general condition of the patient remained fairly good for one week; temperature, 100.4°; pulse, 90. Twelve days after operation, and five days after the drainage tubes had been removed the patient was taken with a chill, the temperature rising to 104°, pulse to 135. The lumbar wound was reopened and 300 c.c. of putrid pus evacuated. The entire substance of the kidney was found destroyed by the formation of abscesses, and therefore extirpation of the organ was decided upon, and immediately performed. The subsequent course of the patient was very satisfactory. She was discharged well at the end of three weeks, and was delivered of a seven and one-half pound baby at full term without trouble.

The Annual Variation of Puerperal Fever Compared With that of Some Allied Diseases.—A. L. GALABIN (*Lancet*, June 14, 1902).—The author presents in two diagrams the annual variations, recorded for about ten years, of the following five diseases: Puerperal fever, erysipelas, general septicemia and pyemia, scarlet fever and acute rheumatism. Each of these diagrams contains, furthermore, a curve representing the annual rainfall in inches at Greenwich. There appears a distinct association of dry seasons with maximum mortalities of these five diseases. The meteorological character of the season may increase the prevalence of disease either by promoting the growth of pathogenic germs outside the body or by facilitating their diffusion or conveyance, most probably in the last mentioned way by aiding dissemination of microbes in the form of dust.

In order to test whether this effect of drought is immediate and direct the author has constructed a third diagram showing the weekly variations of the five diseases in London for the year 1893, in which four of them showed a high maximum of mortality. He concludes from this diagram that the excessive mortality of puerperal fever, erysipelas and rheumatic fever does not occur in the dry period, as is the case with scarlet fever, but from two to four weeks after a heavy rainfall.

The curve of mortality of puerperal fever, comprising ten years, shows a decided downward tendency, like that of the other four diseases. As regards the curve of erysipelas, its most marked feature is its close resemblance, almost amounting to identity, to the curve of puerperal fever.

The author concludes his article by drawing the following practical inferences: A further development of antiseptic midwifery is still required in England and Wales, outside of London. The relation of fatal puerperal fever to erysipelas is closer than has been generally supposed, and much closer than that of either disease to septicemia and pyemia generally. A consequence of this seems to be that an anti-streptococcic serum derived from erysipelas would be more likely to be useful in puerperal fever than one derived from any other source of streptococci except puerperal fever itself.

A Few Remarks on Menopause.—L. KLEINWAECHTER (*Zeitschr. fuer Geb. und Gyn.*, vol. xlvii, 1902).—In this elaborate paper the author deals with the pathology of the menopause, basing his deductions on a careful study of 373 women in the climacteric. Assuming that the normal age of menopause is between forty-

five and fifty years, he encountered premature climacterium in thirty-five per cent., delayed in eleven per cent. of his cases. As causes for premature cessation of menstruation the following conditions were found: Severe hemorrhages during labor, protracted lactation, puerperal fever, heredity, hyperinvolution of the uterus after confinement, uterus infantilis, operative procedures, such as manual removal of the placenta or curettment, chronic diseases without any direct connection with the genital apparatus, as chronic gastric or intestinal catarrh. Considerable space is given in this paper to a consideration of endometritis senilis, which, in the author's opinion, is a disease peculiar to the climacteric age. An exact knowledge of this form of endometritis is of great practical importance on account of the necessity of a differential diagnosis from carcinoma in the early stage. Among 739 patients in the climacteric stage, carcinoma of the uterus was found in forty-seven instances—*i. e.*, in 6.35 per cent. Striking is the fact that of 153 Christian patients, twenty-nine (=nineteen per cent.), while of 586 Jewish patients, only eighteen (=three per cent.), were suffering from carcinoma.

Furthermore, a less susceptibility of the Jewish race for carcinoma may be inferred from the following statistics: Taking all the gynecological patients, without regard to age, there were among 994 Christians sixty-four (= 6.53 per cent.) cases of carcinoma; among 5,987 Jews but thirty-eight (= 0.63 per cent.). The paper is concluded with a complete bibliography of the subject.

The Surgical Elevation and Conservation of the Prolapsed Ovary and Tube.—Henry D. Beyea (*American Medicine*, June 28, 1902).—The operation, invented by Saenger, consists in shortening the infundibulo-pelvic ligaments by means of sutures passed through the tubal and pelvic ends of these ligaments. The operation, in the opinion of the writer, is indicated in two classes of cases: first, that of simple prolapse of the ovary and its correlated tube to the retrouterine plica or into Douglas' cul-de-sac; and, second, those instances of more or less mild chronic inflammatory disease of the tube and ovary which have resulted in the same degree of prolapse, and in which the changes are not sufficiently extensive to demand extirpation of the organs. The second class of cases are more frequent. In these cases the operation is often done in combination with other conservative operations, as salpingostomy, resection of ovaries, etc. The practical results with the operation were in the hands of the author very satisfactory.

Cystopexy in Gynecology.—Chiaventone (*Annales de Gynecologie et d'Obst.*, April and May, 1902).—The author describes a new operation for large cystocele. Pointing out the anatomical relations between the base of the urinary bladder, uterus and vagina, he emphasizes the fact that a cystocele is formed exclusively by the prolapse of the base of the bladder only, while both the anterior and posterior walls of the bladder remain in their normal position, but becoming stretched and relaxed. In order to restore the physiologic condition he operates as follows: The patient being in Trendelenburg's position, an abdominal incision is made in the median line. The uterus, grasped with a volsellum, is drawn upward. With a transverse incision across the vesico-vaginal excavation the peritoneum is divided and the two flaps separated by means of the fingers, from the anterior surface of the uterus on one side, and from the posterior wall of the bladder on the other. Then the base of the bladder is pushed off the uterus and vagina in the median line, and also slightly on both sides until the finger reaches a point where a further separation is impossible on account of dense connective tissue forming a barrier. This line of transition from loose connective tissue into dense tissue corresponds exactly to the interureteral ligament within the bladder, which, at a distance of about two cm. connects the ureteral openings. In case of considerable relaxation of the anterior vaginal wall, it can now be shortened by the formation of a few longitudinal or transverse folds, which are se-

cured with sutures. Then the wall of the bladder, a few mm. above the interureteral ligament, is sewed with three sutures to the anterior surface of the uterus, one cm. above the internal os. The two flaps of the peritoneum, after being resected, are united by a continuous suture. Ventrofixation of the uterus and closure of the abdominal wall complete the operation.

In this manner Chiaventone has cured a case of an extremely large cystocele, in which, in his opinion, other simpler methods would have failed.

In an appendix of his article the author surveys all the operative methods for large cystoceles which are in vogue at present.

ORTHOPEDICS.

IN CHARGE OF

MALVERN B. CLOPTON, M. D.

Cases of Multiple Exostosis.—FORBES HAWK (*Presbyterian Hosp. Reports*, N. Y., Vol. v, 1902).—Two cases—brother and sister, æt. nine and fourteen years, respectively, with a negative family history, no lues or tuberculosis—showed multiple exostosis at the ends of the long bones and on some of the flat bones. The tumors in the boy had been noticed for four or five years, and selected heads of the humeri and ends of a radius and the phalanges and ribs near the epiphyseal lines. Besides several smaller nodules on the upper portion of the femora and rough tibiæ, there was an exostosis three by three inches arising from the lower end of the fibula, which together with mass the same size on the posterior superior angle of the scapula which were removed by operation. These did not recur, and were microscopically loose, spongy bone tissue. The girl had noticed growths on her ribs, femora, tibiæ and humeri for two years. These were all near the epiphyseal lines, and with the exception of one, one by three-fourths on inner side of upper end of humerus, where it pressed on the brachial plexus, had given no trouble. This growth and later a more rapidly growing mass on upper end of left tibia, which measured two by one and three-fourths by one and a half inches, were removed with no recurrence. They were similar to the growths on the boy.

While there was some evidence of old rickets in both children, the author suggests the name of ossifying chordromata to this condition, and believes it independent of rachitis.

Reconstruction of Finger-Tips by Sponge Eduction.—GEO. E. ABBOTT (*Amer. Med.*, July 26, 1902).—Two cases with illustrations show how one-fourth to one-half inch of the finger-tip can by replaced by inducing granulations into fine sponge meshes. The sponge graft should be one-sixteenth inch thick and be kept constantly moist with salt solution, and removed to be replaced with fresh sponge every third day. The results shown are good.

The General Management and Constitutional Treatment of Tuberculosis of Bones and Joints.—H. P. H. GALLOWAY (*Therap. Gazette*, July 15, 1902).—As the orthopedic surgeon's first duty is to realize that all tubercular hip, knee and ankle patients are primarily tubercular, the author gives his views for the management of these cases along lines now generally adopted by tubercular lung sanataria. Rest, fixation, splints and jackets are as necessary as ever, but the environment can be vastly improved. Open air in winter, as well as summer, is essential. During the past year the writer has treated over three hundred patients in tents, and had the most marked and gratifying results not only in the

patients, but also in the attendants. The appetite improves immediately, the general health building rapidly and the local condition with it. The advantage of the tent is its cheapness, and the fact that in winter it is practically impossible to pollute the air, even if there is crowding of patients, on account of the porous structure and the great difference between the temperature indoors and out.

A Report of Two Cases of Typhoid Spine.—GEO. W. MOOREHOUSE (*Bost. Med. and Surg. Jour.*, July 17, 1902).—The cases followed typhoid which in one case was severe. In one case no symptoms were referable to the back while the patient was in bed with the fever, but was exceptionally weak in the back when he began to sit up. Ten days after his discharge from the hospital, the back began to pain, at first to throb and later became a dull ache. After a month of these indefinite symptoms his fever rose to 103° F., and continued for two weeks. The Widal reaction reappeared after having disappeared, and the spleen became enlarged. The leucocytes rose to 8500, but there was no typical relapse, the symptoms being referred entirely to the back. Examination of the spine showed no deformity or tenderness, only pain even when quiet. After thirteen months from the beginning of the typhoid, the back, while yet weak, was free from pain, and work was resumed. No mechanical appliances were used. The second case first showed symptoms with the spine when first propped up as convalescence was beginning. Deep-seated, cramp-like lumbar pains came in paroxysms. For ten days any movement of the spine started the pain; but while quiet in dorsal decubitus was free. After this afebrile attack subsided the patient had a second attack two weeks later, which continued for some months with occasional remissions, during the first month of which the fever would for several days at a time run as high as 104.7° F. There was no spinal deformity, and tenderness did not develop until later, when the paroxysms were so severe that it was feared there was a tubercular process in the bone. After a time, with rest in bed and occasional spinal extension, the symptoms gradually abated, and the patient recovered. The writer considers the trouble most likely to have been an inflammatory process in the vertebræ, their periosteum or cartilages. Deformity has been noted in six of the twenty-one cases reported in the literature. Fever has accompanied ten of the cases. In a very few cases has the trouble been of short duration, usually lasting for weeks or months, and liable to have repeated relapses, arising spontaneously or from the most trivial causes.

Subcutaneous Division of the Tendo-Achilles for the Relief of Equinus.—RUSSELL H. HIBBS, (*N. Y. Med. Jour.*, July 19, 1902).—Seventeen cases were studied to find whether or not the increased length of the tendo-achilles after tenotomy for the relief of equinus had any effect in modifying the function of the calf muscles. The results were obtained three to eight years after the operation. In the normal gait the calf muscles are effective in extending the foot from an angle of 85° to 110°. In eleven of the cases no force was felt in the calf after angle of 80°; in four cases force could be felt at 90°, but not beyond; while in only three cases could the force be felt beyond a right angle. In the eleven cases the tendon was long and thin; in four cases elongated, but normal in size; while only in the three last cases was it normal in length and shape. In the eleven cases in which the function of the calf was seriously modified, there was marked retraction of the muscles. The gait in these cases was entirely without elasticity, "flail foot." The cause of the trouble was the elongating of the structures that filled in the gap when the patient began to walk. The modification of the function of the calf in these patients was the result of, first, the shortening of the muscles in the production of the deformity; second, the further shortening of the muscles subsequent to the tenotomy; and third, still further shortening of the muscles as a result of the lengthening of the structures connecting the ten-

otomized tendon. This serious modification of function of the calf must occur more frequently than now supposed, although this series is too small to draw definite conclusions.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

The Mental Diseases of Children.—DERCUM (*Philadelphia Medical Journal*, July 19 and 26, 1902) states that idiocy and imbecility are more common in childhood than insanity. Of the former he recognizes the following classes:

(1) Those with gross morphological changes, presenting in marked degree the stigmata of arrest and degeneration, such as microcephaly, anomalies of palate, teeth, tongue, etc.

(2) Those with gross pathological changes, producing hemiplegia, diplegia or hydrocephalus, destruction of large areas of cortical substance.

(3) Cretins.

(4) Amaurotic family idiots.

Of the insanities, the group of delirium, confusion and stupor occurs frequently in childhood. Delirium is exceedingly common in the acute infectious diseases; confusion and stupor are also frequently observed. This group does not differ in its manifestations from those as seen in adult life.

Melancholia, mania and paranoia occur very rarely in childhood, a fact which doubtless stands in relation to the undeveloped condition of the child-mind. Not infrequently, however, children present symptoms which are the forerunners of an insanity which is to develop later.

Neurasthenic insanities do doubtless occur in childhood, but they are far more rare than in the adult; they do not present such sharply defined or well-differentiated forms, and a marked neuropathic heredity is usually present.

The dementia of puberty (dementia precox of Kraepelin) is an affection of great interest and importance. It is essentially a dementia which begins insidiously and is usually progressive. Its course is usually characterized by two phases: the first of depression, the second of expansion or exaltation, with associated mental impairment. Various clinical types are recognized. Its most important etiological factor is heredity. In addition there may be the factor of auto-intoxication, the poison being elaborated by the ductless glands, perhaps, or by profound modification of the metabolism of the body. In addition the factor of nervous overstrain (to which children at this time of life are not infrequently subjected) may be a factor.

Paresis is exceedingly rare in childhood, hereditary syphilis being here the essential cause.

Hysterical and epileptic insanities, while they do occur in childhood, are very rare.

The Treatment of Acute Milk Poisoning; Summer Diarrhea.—T. S. WESTCOTT (*Philadelphia Med. Journal*, July 26, 1902) says that the treatment naturally falls into three divisions: (1) prophylactic, (2) dietetic, (3) medicinal.

Prophylaxis.—The cardinal principle is the use of pure cow's milk. The cows should be tuberculin-tested; the average percentage of fat, proteids and sugar should be fairly constant; there should be complete freedom from preservatives and coloring matters; there should be a minimum number of bacteria to the c.c., with complete absence of pathogenic varieties. In other words, certified milk should be used whenever possible. Pasteurization and sterilization

of milk in hot weather may be resorted to, but these processes cannot make wholesome a milk already unfit. The practice of heating the night-bottle and keeping it warm until the baby wakes for the feeding is strongly condemned. Experiments by the author showed that the bacteria in the milk multiplied enormously as a result of such a practice.

During the hot weather no milk should be used that has been kept over night from the supply of the day before.

In many cases it is of advantage to weaken the strength of the milk mixtures during the very hot weather. At the slightest sign of disturbance of stomach or bowels, milk feeding should be stopped and a dose of castor oil given, followed by broken doses of calomel.

Dietetic Treatment.—No cow's milk must be used. Albumen or barley water or acacia or rice water may be given. If otherwise indicated, small quantities of whisky or brandy may be added. Raw beef-juice may be used. Milk foods must be withheld until all signs of trouble are over, though later on in the disease the author allows the use of condensed milk. Return to milk-feeding should be gradual.

Medicinal Treatment.—After the initial purge with oil or calomel, or both, the author uses bismuth in various combinations. Opium he rarely finds necessary. Cardiac stimulants are used as indicated, though strychnia is avoided because of its action in stimulating peristalsis. Rectal irrigation with normal salt solution is recommended as routine treatment, and hypodermatoclysis with normal solution is used in cases of threatened collapse.

Intussusception.—Huber and Erdmann (*Archives of Pediatrics*, July, 1992), after reporting a case, give a review of the salient features of the condition. The principal symptoms are sudden abdominal pain, vomiting, the passage with much straining of a stool containing mucus, blood, and scanty liquid feces, and the presence of a tumor, though one or more of these symptoms may be missing. Of the three varieties, the enteric is the rarest; and here no tumor can be made out, as a rule. The colic form is less common than the ileo-cecal, which is the type most commonly seen.

The vomiting which usually sets in early is persistent, but fecal vomiting is rare in infancy. The character of the rectal discharge is important, and the presence of blood or bloody mucus resembling currant jelly is always suspicious, in the absence of a history of polyps or dysentery. Where a tumor cannot be felt by abdominal or rectal examination alone, conjoined manipulation may reveal its presence.

Two methods of treatment are advocated to-day: injection and operative interference. At present the tendency is to limit the employment of injections to the early stages, twelve to twenty-four hours from onset. They should be given without anesthesia. Baby placed on belly, hips elevated, warm water is then to be poured into the rectum without using too much pressure, the water to be held in the bowel by pressure on the anus from without. If this method is not successful the authors consider that surgical intervention should be had at once.

Erdmann considers that enemata should not be used at all in cases of over twelve hours' standing.

The operation is not difficult, excision of the gut being rarely required except in long-standing cases.

The proximal end of the gut should never be pulled in attempting the reduction, as this procedure is often productive of tears of the intestine. Reduction is to be produced by pressure upon the apex of the mass through the gut at the distal end. Should adhesions between entering and receiving gut prevent reduction, they may usually be broken down by the passing of a blunt instrument between the two portions.

Diphtheria and the Diphtheria Bacillus in Scarlet Fever, as the Result of Careful Investigation Extending Over Several Years, and a Study of the Literature.—SCHABAD (*Archiv fuer Kinderheilkunde*, vol. xxxiv, parts 3 and 4, pp. 161–216) arrives at the following conclusions:

1. Diphtheria may occur at the beginning, during, or in the convalescence from an attack of scarlet fever.

2. In order to make the diagnosis in the beginning of the attack of scarlet, the existence of the clinical symptoms of diphtheria as well as the presence of the bacilli must be demonstrated.

3. Klebs-Loeffler bacilli found in the throats of patients in the first stages of scarlet fever were not pathogenic for guinea-pigs.

If the diphtheria supervened later, the bacilli were pathogenic.

It does not follow, however, that the Klebs-Loeffler bacilli, found in the first stages of scarlet, do not add to the virulence of the scarlatinal process. In some cases diphtheria bacilli are found early in scarlet, without clinical symptoms of diphtheria. It is probable that in such cases the diphtheria bacilli act as saprophytes, and do not take active part in the pathological process.

4. Cases of scarlet fever, admitted to scarlet fever wards, should have the throat bacteriologically examined. If Klebs Loeffler bacilli are present, these cases should be isolated from the older cases of scarlet.

5. In all cases where there is a combination of the two diseases, injections of diphtheria antitoxin should from part of the treatment.

Prophylaxis of Diphtheria by Preventive Injections of Antitoxin.—SEVESTRE (*Rev. Mens. des Mal. de l'Enf.*, June, 1902) concludes:

1. That preventive injections are of value in immunizing children exposed to the danger of diphtheria. They are never followed by bad results, and produce, at most, ephemeral skin eruptions; more rarely joint pains. Unfortunately, the period of immunization is short, not exceeding three or four weeks.

2. Injections are indicated in families where one member has contracted diphtheria, and in institutions where many children are congregated, where diphtheria has broken out.

3. Even in the absence of distinct cases of diphtheria in institutions, injections may be of value, for instance, in scarlet fever pavilions, etc.

4. The giving of injections does not imply the dispensing with other prophylactic measures (disinfection and isolation), but renders these easier and more efficacious.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

The Cause and Manner of Death in Epilepsy.—W. E. SPRAELING (*Medical News*, June 28, 1902).—This timely article has for its general thesis that an epileptic is always in danger of death, due to some manifestation of his disease. The manner and causes of death may be summarized as follows:

(1) It may occur suddenly in any case, as the result of a single seizure. (2) It may result from a series of seizures, occurring in rapid succession and ending in status epilepticus. (3) It may result from an accident suffered because of a fit. (4) It may result from all other causes that ordinarily produce it, with a seeming preponderance in favor of diseases of the heart and lungs. In a study of two hundred and twenty deaths from epilepsy the manner of death may be

approximataly stated as follows: Out of every one hundred epileptics who die, about four do so as the result of a single fit; about twenty-four as the result of status epilepticus; about twelve as the result of some accident, including suffocation in bed; about twenty-four as the result of some disease of the lungs, chiefly tuberculosis; about ten as the result of some organic disease of the heart, and about twenty-six from all other causes.

Etiology of Paresis.—ARTHUR W. HURD (*The Medical News*, May 17, 1902).—This paper is one in the recent symposium on paresis, in which some of the leading neurologists expressed their views on the mooted question of paretic dementia. The assigned number of causes which are of importance in paretic dementia have become narrowed down to acquired syphilis, alcoholism, mental stress and worry, heredity (including inherited syphilis), cerebral traumatism, sunstroke, and lead poisoning. Of these, by far the most important is syphilis. The statistics in favor of the syphilitic origin of paresis vary so widely that they are of comparatively little value. The author does not go so far as to subscribe to the dictum "No syphilis, no paresis." The following are the conclusions of the author:

(1) Syphilis is the most common factor in the production of paresis.

(2) It may cause it directly—an exciting cause.

(3) It may cause it indirectly by bringing about such a devitalization of the system generally as to render other influences operative—a predisposing cause.

(4) It is not usually the sole cause, but there is associated with it the deleterious effect of mental stress and overexcitement, dissipation and alcoholism, and heredity.

(5) In a certain relatively small number of cases mental stress, worry or overwork may be the sole ascertainable cause.

(6) Traumatism may also be the cause in a still smaller proportion of cases, but in many of them it acts as a developing or ripening agent of an incipient paresis in a syphilitic subject.

Fecal Vomiting in Status Epilepticus.—H. GOETZE (*Neurol. Centralblatt*, June 10, 1902).—This symptom was observed in a fifty-one-year-old woman who had suffered from epilepsy since the age of puberty. Following a series of epileptic attacks there developed a status epilepticus. During this the patient vomited several times masses of foul-smelling material containing particles of fecal matter. This phenomenon was repeated several times, chiefly in the status of a severe type lasting some time. In the status of a less violent sort it was not observed. In the free interval the patient had no symptoms pointing to any gastro-intestinal affection. No mention of this phenomenon was to be found in literature. The explanation is ventured that during the convulsion the muscles of the intestinal tract were involved in the spasm in precisely the same way as the other muscles of the body. By means of this spastic contraction of the bowel muscles an ileus resulted. To this condition the author has given the name of ileus spasticus.

Post-Typhoidal Ulnar Paralysis.—K. LIEPIET (*Berl. Klin. Woch.*, No. 27, 1902).—Isolated nerve paralyses following typhoid are of rare occurrence. The following case is, therefore, of some interest: In the convalescent stage of a severe typhoid in a man twenty years old, there developed a definite atrophy of the muscles of the little finger—the interossia and the adductor pollicis. These muscles showed the reaction of degeneration. Pain was present in the region supplied by the ulnar nerve. The condition cleared up after some months. In the literature sixteen cases of isolated ulnar paralysis following typhoid have been reported. The prognosis of such cases is uniformly good.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

Study of the Geographical Distribution of Urinary Lithiasis.—SERGUIEWSKY (*Ann. des Mal. des Organ Genito-Urin.*, March, April, May, June, 1902).—After giving much space to the resume and consideration of the data, statistics and opinions of the authors of all the countries of the five continents of the globe, the writer next takes up the various theories in explanation of the causation of urinary lithiasis, and discourses fully upon the influence of climate, geological conditions, potable waters, different beverages, alimentary regime, and, in general, hygiene, heredity, and the different social conditions and races of mankind.

There is no doubt that urinary lithiasis is very unequally distributed upon the face of the earth, but the statistics collected are not sufficiently complete and precise for one to indicate its degree of frequency in every country with a desired precision. Yet it is certain that we meet veritable epidemics of it at times. There is no theory which explains this unequal distribution; also there is no discoverable cause of the local epidemics, with the following exception: in Egypt, where calculi are developed around a parasite which penetrates into the bladder.

We recognize that the different races (in a liberal sense) play an important role in the occurrence of calculi, and that especially the social conditions play a very important part in the development of urinary lithiasis in children.

However, the study of the geographical distribution of urinary lithiasis reveals no specific cause as regards its etiology and pathogenesis; therefore it must be to the clinic and to pathological experimentation that we must look for its explanation.

Fixation of Movable Kidney by Means of Strong Carbolic Acid—Six Cases.—CARWARDINE (*The Lancet*, London, June 28, 1902).—The plan consists in freely painting the whole surface of the kidney, except the hilum, with the strongest liquid carbolic acid, so that the surface becomes covered with granulation tissue within a few days. The painting is best done after the supporting sutures, etc., have been inserted, but before they are tied, by means of a swab containing the liquid not in excess. In four of the cases—those in which the kidneys were suspended by gauze slings and packings—the author was able to watch the surface of the kidney for from ten days to three weeks, and observed the granulations and lymph rapidly formed, followed by itimate and firm incorporation of the kidney with the surrounding tissues. The acid seems to prevent, in addition, subsequent pyrexia and has no disadvantages. Six cases with good results are reported.

Hydatid Cyst of the Kidney.—HAYNES (*Annals Surgery*, July, 1902).—A large hydatid cyst, occupying quite the whole of the right kidney, was discovered by accident while operating for severe appendicitis. From what history of the patient that could be obtained it was inferred that the hydatid had caused no symptoms. The liver was hard, but not nodular. The patient died of pneumonia, and no post-mortem could be obtained. Upon microscopic examination hooklets were easily discernible, but there were no traces of kidney tissue.

Intra-Vesical Separation of the Urine from Both Kidneys.—HARTMANN (*Ann. des Mal. des Organ Genito-Urin.*, June, 1902).—Finding that Harris' instrument was not satisfactory, the author induced his assistant, Luys, to construct a more practical apparatus. With it he has made fifty segregations with satisfaction, and others obtain the same excellent results.

The principle of the apparatus is to place in contact with the inferior wall of the bladder a curved shank, in the curve of which is stretched a veil of rubber. We thus make a partition which separates the bladder into two parts, each corresponding to a ureter.

Essentially the instrument is composed of two metallic sounds paralleled, between which in a bed lie a chain which may be tightened or loosened by a mechanism in the handle. As the chain rises from the curve it carries with it a rubber partition. Each sound has a canal for the outflow of the urine from each ureter.

The instrument presents no difficulties for introduction into the bladder, and we may thus easily collect the urine separately from each ureter. It is then useless to have recourse to the delicate and sometimes dangerous manœuver of catheterizing the ureter to determine the functional value of each kidney.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

History of Eczema in the Last Century in England.—P. G. UNNA (*British Journal of Dermatology*, July, 1902).—This elaborate study is of interest to all, not merely from an historical point of view, but a practical one, as it brings forward a proper knowledge of the value of the term.

"It is difficult to imagine a time when eczema played no part in the diagnosis and treatment of skin diseases, and, in fact, did not even exist. And yet we need only go back a little more than a hundred years for this to be the case." With this opening remark, Dr. Unna goes on and discusses master after master in their order or time.

Willam, who has given us "the foundation to all dermatological knowledge," used the term to denote the vesication from serum and hydrargyria, always being produced by external influences. This teaching was continued until the time of Rayer, who was the first to add chronic eczema to the term or class.

It is to Rayer, Devergie, E Wilson and McCall Anderson that we owe our present conception of the term, but it is "only by the progress of microscopical, bacteriological and chemical investigation hand in hand with the further clinical development of the eczema conception, of so great importance in dermatology, be possible."

The Fish Theory of Propagation of Leprosy.—A. S. ASHMEAD (*St. Louis Medical and Surgical Bulletin*, August, 1902).—In discussing the theory of Mr. Jonathan Hutchinson, that fish are a means of the propagation of leprosy, Dr. Ashmead makes the following rather pregnant and interesting remarks:

"Neither of these eminent leprologists think that fish operates in the transmission of leprosy as an intermediary host, as I do, but both of them think that it is by pure alimentation it propagates the disease.

"I have tried the inoculation of leper bacilli on fish flesh and failed. Koebner, of Berlin, also tried it on eels, and he failed. Nor is the bacillus ever found in fish when hunted for. Neither in Japan nor Hawaii, both scourged leper countries. The only reasonable fish theory of propagation of leprosy is one which takes into account the probability of a spore life of the leper bacillus, or a cysticercoid life. The spores of leper bacilli or their cysticerci might well inhabit fish flesh, which when eaten by man permits the creation of second being. This is the theory which I believe in, that is an intermediary host function of fish and mosquitoes.

"The mosquitoes, or perhaps another insect, sucks the blood of a leper, which, as we all know, does not contain the leper bacilli, but may contain its propagating property, although it dies in the horse, as was shown by Carrasquilla's fiasco. The dead mosquitoes or their larvæ in the water, are eaten by fishes, which in turn are eaten, either *living* or raw, by man, who thus becomes contaminated by something transmitted to him from the leper's blood. Even in direct transmission from man to man, it might be that it is not the original full-grown bacillus that is the propagating principle. However, that is another question. In the intermediary host function theory of fish as transmitters of leprosy there is a series of habitats of spore life of the bacillus to be studied before this matter can be satisfactorily learned; and that is exactly what is being done at the present time by the United States Fish Commission to Hawaii."

On Resorbin.—Reinhold Ledermann (*Jour. Cutaneous and Genito-Urinary Diseases*, August, 1902).—Resorbin is a fat emulsion, consisting of almond oil, wax and water, combined by the addition of a minute quantity of gelatin, and a small amount of lanolin has been incorporated with it to improve its consistency and stability. This ointment being a fat emulsion, can be rubbed into the corneous layer and follicles without energetic massage, so that a slight residue or fat remains on the surface; therefore it is particularly applicable to the exposed parts, as the face or hands. The author recommends in these localities that the ointment be rubbed in and the excess wiped off with a dry rag.

From the large amount of water it contains the preparation acts as a cooling ointment, from the evaporation of the water, thereby relieves itching and allays inflammation. The marked softening of the superficial layers of the skin produced by resorbin shows that it is indicated, with or without the addition of other drugs in all affections in which it is desirable that the corneous layer be permeated with fat; that is, for the removal of crusts and scales in different skin diseases, such as pityriasis capitis and faciei, in crusting and squamous eczema, in impetigo, psoriasis and ichthyosis, also in all forms of dermatitis associated with rhagades.

Any of the numerous remedial agents ordinarily used in dermatology can be added to this base. It is especially to be recommended as a base for mercurial inunctions.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

William E. Sauer, M. D.

The Relation of the Nose to the Reproductive Organs.—Cox (*Brooklyn Medical Journal*, July, 1902), in a very interesting article, notes the relation which the nose bears to the reproductive organs, and cites several examples, viz.: The frequent occurrence of hemorrhage from the nose at the time of puberty and during early adolescence. The engorgement of the turbinates during the menstrual epoch, which may seriously embarrass nasal respiration, and that even in women who at all other times have unobstructed nostrils. The so-called "menstrual headache" is often due to a swollen middle turbinate pressing on the septum, and can be relieved by local applications to the congested turbinates. Nasal reflexes during sexual excitement, such as congestion and sneezing, are frequent. As an example of this the author cites the case of a man in whom the consummation of the sexual act always produced a severe fit of sneezing and occlusion of the nostrils. Two cases of severe priapism, each of several days' duration, are reported by Hobbs, which had completely resisted all kinds of

treatment, but which yielded promptly to the application of cocaine to the nasal turbinate bodies. In one case there was no intimation of a return; in the other, recurrence took place a few times, but only to a slight degree. Nasal disease is also frequently affected by menstruation, uterine or ovarian disorders, and the menopause. Trousseau noted the fact that the fetor of ozena is most pronounced during the menstrual period. It is also known that the fetor and crust formation are markedly mitigated after the menopause. The relief of painful menstruation by intra-nasal applications has been reported by Schiff, Fleis and others. Schiff proved that the pain of dysmenorrhea was relieved promptly in thirty-four out of thirty-seven cases by the application of twenty per cent. cocaine solution to the "genital spots" of the nose. Some cases he observed for months. Hypogastric pain was relieved by cocainizing the turbinate, and sacral pain by application to the tuberculum septi. Chrobak, in seventeen cases, cauterized the genital spots during the menstrual interval with trichloracetic acid or electrolysis, with no return of the dysmenorrhea in twelve cases, one being under observation for two and a half years. This author also noted, in two cases, complaint of hypogastric pain immediately upon application of the cocaine plug. A lack of development of the erectile tissue of the nose has been noted in animals which had been castrated.

Hypertrophy of the Lymphoid Tissue at the Base of the Tongue as a Cause of Cough.—JARECKY (*The American Journal of the Medical Sciences*, July, 1902).—Coughs, especially reflex, are often very annoying to both the physician and the patient, and frequently baffle the former. The author calls attention to a rather frequent cause of cough, but one that is often overlooked, and that is a hypertrophied condition of the lymphoid tissue at the base of the tongue. The symptoms produced by this hypertrophy are a feeling of foreign body, fullness and tickling sensation in throat, desire to swallow and lastly the cough, which may be croupy, barking in nature or only a hacking cough with little or no expectoration. The application of a five per cent. cocaine solution to the base of the tongue will relieve the patient of his cough for a time, unless the epiglottis is buried in the masses of lymphoid tissue. A report of twelve cases is given. He found that the removal of masses of hypertrophied tissue is the best form of treatment and can be most easily accomplished with Myles' lingual tonsilotome.

The So-called Immunizing Treatment of Hay Fever.—INGALLS (*Medical Record*, July 19, 1902).—In a paper read before the American Laryngological Society at Boston, the author detailed some observations he had made in the treatment of hay fever with the fluid extracts of the pollen from golden rod and rag weed. The preparations were combined in equal proportions and given four times daily, beginning with two-minim doses and gradually increasing up to twenty. The patients were instructed to continue the remedy for a week or two and then stop it if there were no symptoms of hay fever. Twelve patients, or sixty-seven per cent., were relieved by the internal use of the preparation. In several instances the hay fever returned on stopping the medicine, but disappeared on resuming it. Thirteen believed they were benefited by using it in spray form; sixty per cent. of the cases were subject to asthma during the attack, and half of them were benefited or entirely relieved from the asthmatic symptoms. In two cases it caused disturbance of digestion, and in one it gave rise repeatedly to menorrhagia and had to be discontinued. About twenty-five per cent. of those benefited by this treatment attributed their hay fever to rag weed and none to golden rod. Owing to the fact that these preparations were seldom used in medicine, it is possible that they had been long in stock and of low efficiency. In the discussion that followed Dr. Hope said that the pollen theory of the origin of hay fever had received a severe set-back from the occasional occurrence of cases of perennial congestive activity of the nose.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

The Various Causes of Obstruction in the Central Artery of the Retina.—A. H. THOMPSON (*Ophthalm. Review*, March and April, 1902).—The ophthalmoscopic picture of cases usually diagnosticated as "Embolism of the Central Artery of the Retina" does not differ widely from the appearances noted first by von Graefe in 1859. The typical features include a pallid disk, attenuated vessels (with occasional irregular to-and-fro movements of the blood column in the veins), central haziness of the retina, the macula itself occupied by a cherry-red spot and surrounded by delicate greyish-white stippling. Subjectively, there is sudden partial or total loss of vision.

The possibility of other conditions giving rise to arterial obstruction and hence producing appearances indistinguishable from those evoked by embolism has been asserted by various observers. In this interesting paper Thompson gives a critical review of some of the pathologic incidents which, theoretically, might originate the ophthalmoscopic picture.

1. *Embolism.*—The free anastomosis of the ophthalmic artery with the external carotid and the facial would preclude the possibility of a plug situated in the former retarding even momentarily the retinal circulation; therefore, if the cause be actually an embolus, it can only be situated in the central artery of the retina or in one of its branches. Three objections to this theory have been advanced: 1. Shortly after the onset of blindness there is still a small amount of blood circulating in the retinal vessels. 2. No trustworthy ophthalmoscopic observation of the actual thrombus has ever been recorded. 3. Microscopic examinations have merely shown conditions which might have been produced by an old embolus or thrombus or by a proliferation of the vessel wall.

2. *Hemorrhage into the Optic Nerve Sheathe* was diagnosticated by Magnus in a case of sudden blindness with the ophthalmoscopic picture of embolus, where subsequently there occurred a partial restoration of function in the nasal half of the retina.

3. *Primary Thrombosis.*—This diagnosis was first proposed by Priestley Smith in 1884. It is difficult to imagine any pathologic condition of the blood producing a clot in the absence of lesion of the intima, and it is extremely doubtful whether such lesion ever does occur in arteries as small as the retinal artery. Intravascular clotting may be induced experimentally by the injection of certain proteid-like substances into the circulation, but the coagulum is always formed within the veins. Inasmuch as there is no unimpeachable instance of primary thrombosis of the retinal *vein*, we are all the more justified in rejecting the notion of a primary thrombosis of the retinal *artery*.

4. *Spasm of the Muscular Walls of the Artery.*—If the retina is deprived of its blood supply for even a few minutes, it suffers irreparable injury. Thus, spasm of the retinal artery might, theoretically, cause permanent blindness. Such an occurrence would find an analogue in the arterial spasm in connection with Raynaud's disease. Actual spasm of the branches of the retinal artery has been observed by Wagenmann in a case having attacks of transient blindness, the blindness later becoming permanent.

5. *Disease of the Arterial Walls.*—Swelling of the intima, thus permitting approximation of the vessel walls under conditions of low blood pressure, might suffice to deprive the retina of blood long enough to destroy its function. Such swelling has actually been demonstrated in the retinal artery. Whether the condition can be regarded as a true "Endarteritis Proliferans" is still *sub judice*.

The writer suggests that in addition to the customary examination of the heart and the testing of the urine for albumin, cases under discussion should be questioned as to prodromal attacks of transient blindness and as to any conditions which might conceivably give rise to reflex arterial spasm. Conditions favoring thrombosis (anemia, pregnancy) and endarteritis (syphilis) should be noted.

The Value of Trikresol as an Antiseptic in Ophthalmic Practice.—E. JACKSON (*Ophthalm. Review*, June, 1902).—In 1894 de Schweinitz recommended an aqueous solution of trikresol 1:1000 as a basis for collyria. He found that such solutions placed in loosely-corked bottles and exposed to the air remained free from bacterial contamination.

Jackson's experience with this solution has convinced him that it constitutes a more nearly ideal antiseptic than any yet tried in ophthalmic practice. Applied to the conjunctiva it causes only a momentary sensation of burning, comparable to the transient smarting induced by simple solutions of eserin or cocain. He has used it with entire satisfaction as a basis for solutions of cocain, eserin and most of the mydriatics. As an antiseptic wash it is superior to boric acid, which, as is well known, readily becomes contaminated with low vegetable forms. Its advantages in this connection are summed up as follows: 1. It is free from risk of making the eye worse in any respect. 2. It is an antiseptic solution that will at least keep itself clean. 3. It has a distinctly germicidal influence when used to wash out the conjunctiva.

A Case of Naphthalin-Cataract.—A. LEZENIUS (*Klin. Monatsbl. fuer Augenheilk.*, February, 1902).—Opacification of the lens has been induced experimentally in animals by feeding them with a paste composed of naphthalin and glycerin (Panas, 1887). Shortly after ingestion the vitreous became cloudy and was found to contain crystals of various salts of calcium, which later appeared in the retina as greyish plaques with irregular borders. The optic disk was notably swollen. At the end of the third week the first sign of lenticular change appeared in an opacification beginning around the nucleus. A week or so later the entire lens had become clouded. In the meantime the animals had grown thin and the urine showed crystals of calcium salts.

It is well known that the exhibition of full doses of naphthalin is occasionally followed by symptoms of irritation of the uro-genital tract, such as swelling of the meatus, itching of the urethra, strangury, and vesical tenesmus. There may also be digestive derangement, manifested by nausea and vomiting.

The case reported took 5.0 gms. naphthalin (which was later found to be an impure preparation) in the course of thirteen hours. The following morning the patient awoke with a severe pain in the bladder and "blind." On examination vision was found reduced to "fingers at 1.5 metre." The fields for white and color were concentrically narrowed. The lens showed superficial and deep distinctly outlined white opacities, between which there obtained a diffuse greyish clouding. 0.5 mm. of the periphery of the lens was entirely transparent, thus giving the appearance of a zonular cataract. The fundus was imperfectly seen, but narrowing of the vessels and blanching of the papilla in the temporal half could be made out.

In an extended analysis of the case the writer concludes that the lens changes cannot justly be ascribed to the impurities in the preparation, inasmuch as the perfectly pure drug produced precisely the same changes in animals. The diagnosis is strengthened by the positive exclusion of nephritis, diabetes and rachitis, and by the presence of the characteristic vesical symptoms.

BOOK REVIEWS.

UEBER DIE BEDEUTUNG DER FUNCTIONELLEN NERVENKRANKHEITEN FUER DIE DIAGNOSTIK UND THERAPIE IN DER GYNAEKOLOGIE. Von PROFESSOR DR. B. KROENIG, Leipzig. Verlag von GEORG THIEME. 1902. G. E. Stechert, New York, agent. Price, 60 cents.

For many years the relation between nervous diseases in the female and the sexual organs has occupied a rather prominent position in the interest of the profession. An explanation for the deplorable fact that this question is still far from being satisfactorily settled may be ascribed to two reasons: First, the neurologists who have approached the question have not been thoroughly competent gynecologists; second, the gynecologists who have tried to solve this problem have not properly regarded the complete change of opinion which of late has taken place with reference to the nature of the so-called functional nervous diseases, especially hysteria and neurasthenia. More and more may we observe how a certain familiarity with the work of the neurologist is appreciated by the modern gynecologist. The book before us, written by a man who ranks high among the best of German gynecologists, will undoubtedly greatly advance a general knowledge of the relationship between diseases of the nervous system and the sexual apparatus in the female. The author deals in this volume in a very clear and satisfactory manner with the origin of nervous diseases consecutive to abnormalities in the genital organs, with secondary changes in the sexual sphere produced by primary diseases of the nervous system, and with the treatment of these conditions. The reviewer, although he cannot agree with the writer in all points, is ready to acknowledge that the author's views are both interesting and instructive. This volume is strongly recommended not only to the gynecologist, but to every physician who has to care for female patients.

MANUAL OF ANTENATAL PATHOLOGY AND HYGIENE. By J. W. BALLANTYNE, M. D., F. R. C. P. E., F. R. S. Edinburgh, Lecturer on Midwifery and Gynecology, Medical College for Women, Edinburgh; Lecturer on Antenatal Pathology and Teratology in the University of Edinburgh. William Green & Sons, Publishers. 1902.

Economic, scientific, sentimental, practical and political are the causes which have gradually invoked attention to matters of antenatal interest. Preventive medicine, which occupies so conspicuous a position in modern science, will not have attained to its highest development until it has solved the problem of antenatal prevention of disease. A literature has grown up around morbid heredity, antenatal pathology, antenatal diagnosis of fetal diseases, and hygiene of the fetus, to which the author of this book has made more original contributions than any other investigator. It would seem a hopeless task to outline here the contents of a book which contains some new, original, striking thought on almost every page. It comprises all that the author himself has contributed to the subject; it surveys carefully the work of all the other investigators, and indicates all the points which need further study in order to make perfect our knowledge of this still dark field of medical science.

The present volume deals with antenatal pathology in its relation to postnatal and neonatal pathology, and with the pathology and hygiene of the fetus. A second volume, promised by the author, will be devoted to teratology. This book, which justly may be regarded as a classic, will appeal to every one who is interested in scientific research of a high order.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Volume V. Obstetrics. Edited by REUBEN PETERSON, A. B., M. D., and HENRY F. LEWIS, A. B., M. D. April, 1902. Price of this volume, $1.25; price of the series, $7.50.

The present volume, one of a series of ten, issued at monthly intervals, covers the field of obstetrics. The editors have selected for abstracting from the world's literature such articles as, in their opinion, best exemplify the thought of the period. In some instances they have inserted personal remarks in brackets. We heartily recommend this series to the general practitioner who wants to keep in touch with the progress in the various branches of medical science.

A PHYSICIAN'S PRACTICAL GYNECOLOGY. By W. O. HENRY, M. D., Omaha, Nebraska, Professor of Gynecology in the Creighton Medical College. With five full-page illustrations and sixty-one illustrations in the text. Lincoln, Nebraska. 1902.

This little volume presents within the small limit of 226 pages the essentials of gynecology in a brief, concise, and very clear manner. The whole arrangement of the matter is happy and well adapted to the needs of the student. The treatment taught is up-to-date. We consider this book one of the most satisfactory treatises of this size on gynecology.

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